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Engineers

New Orleans District

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**CULTURAL RESOURCES EVALUATION OF
PORTIONS OF THE ALOHA-RIGOLETTE AREA,
LOUISIANA FLOOD CONTROL PROJECT, GRANT
PARISH, LOUISIANA**

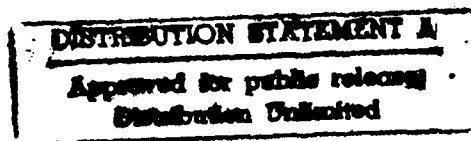
FINAL REPORT

November 1, 1992

Louisiana Geological Survey
Louisiana State University
Baton Rouge, Louisiana 70893



Prepared for



U.S. ARMY CORPS OF ENGINEERS
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<p>A cultural resources survey was conducted in connection with the proposed Aloha-Rigolette flood control project. Geomorphological and historic documents were reviewed and a field survey was carried out. Field work involved: (1) survey of a 28 acre area near the confluence of Bayou Rigolette and Sam's Bayou; (2) canoe survey along 8.2 mi of Bayou Darrow; (3) search for Site 16GR4, which had been reported by Fisk; and (4) survey of a 23 acre area east of the mouth of Bayou Darrow. Terrestrial survey of the 28 acre tract revealed the presence of two cultural properties, the Bynum Cemetery (16GR469) and a prehistoric chipping station (16GR423). Both these were located outside the survey area proper. Due to the lack of stratified deposits and the general paucity of artifacts, 16GR423 was adjudged ineligible for nomination to the National Register of Historic Places. Riparian survey along Bayou Darrow failed to reveal cultural properties, but the search for site 16GR4 (Indian Hill) succeeded. This site was found to be well outside the survey area, (continued)</p>			
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19. ABSTRACT

and was determined to have been mislocated on the Division of Archaeology site form. The site is described as a prehistoric lithic quarry, but initial examination revealed that it has suffered considerable disturbance, insofar as it is currently used as a gravel quarry. Current data do not support nomination of this site to the National Register of Historic Places, but further exploration of the site is recommended.



DEPARTMENT OF THE ARMY

NEW ORLEANS DISTRICT, CORPS OF ENGINEERS

P.O. BOX 60267

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REPLY TO
ATTENTION OF:

May 5, 1992

Planning Division
Environmental Analysis Branch

To The Reader:

This cultural resources effort was designed, funded, and guided by the U.S. Army Corps of Engineers, Vicksburg District and New Orleans District as part of our cultural resources management program. The work was performed to provide information needed to assess cultural resource impacts which could result from construction of the Aloha-Rigolette Flood Control Project.

The State Historic Preservation Office indicated in their letter dated April 29, 1992, that they concur with these findings. This report has been reviewed and accepted by the New Orleans District. We commend the contractor's efforts and careful scholarship.

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of the Contracting Officer

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**CULTURAL RESOURCES EVALUATION OF PORTIONS OF
THE ALOHA-RIGOLETTE AREA, LOUISIANA FLOOD
CONTROL PROJECT, GRANT PARISH, LOUISIANA**

PRELIMINARY FINAL REPORT

**Malcolm K. Shuman, Ph.D.
Principal Investigator**

with

**George J. Castille, III
Sue Smith**

1992

for

**U.S. Army Corps of Engineers
New Orleans District
Contract DACW29-90-D-0016**

**Louisiana Geological Survey
Louisiana State University
Baton Rouge, LA 70893**

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ABSTRACT

A cultural resources survey was conducted in connection with the proposed Aloha-Rigolette flood control project. Geomorphological and historic documents were reviewed and a field survey was carried out. Fieldwork involved: (1) survey of a 28 acre area near the confluence of Bayou Rigolette and Sam's Bayou; (2) Canoe survey along 8.2 mi of Bayou Darrow; (3) search for Site 16GR4, which had been reported in 1938 by Fisk; and survey of a 23 acre area east of the mouth of Bayou Darrow. Terrestrial survey of the 28 acre tract revealed the presence of two cultural properties, the Bynum Cemetery and a prehistoric chipping station (16GR423). Both these were located outside the survey area. The former, as a cemetery, was not eligible for inclusion on the National Register, and the latter, due to the lack of stratified deposits and the general paucity of artifacts does not meet the criteria necessary for inclusion on the National Register. Riparian survey along Bayou Darrow failed to reveal cultural properties, but the search for site 16GR4 (Indian Hill) succeeded. This site was found to be well outside the survey area, and was determined to have been mislocated on the Division of Archaeology site form. The site is described as a prehistoric lithic quarry, but initial examination revealed that it has suffered considerable disturbance, insofar as it is currently used as a gravel quarry. Current data do not support nomination of this site to the National Register of Historic Places, but further exploration of the site is recommended. No further work is recommended within the limits of the proposed project area.

CHAPTER I

INTRODUCTION

This report describes the results of archival, geomorphological and field research in Grant Parish, Louisiana, as Delivery Order No. 003 under Contract DACW29-90-R-0016. The work was commissioned by the Corps of Engineers (New Orleans District). Archival research included an examination of land titles in the survey area, as well as research into historic settlements, both European and Native American. Geomorphological investigations included review of previous studies, from classic works (i.e., Fisk 1938) to more recent syntheses (i.e., Goodwin et al 1991). A site visit to the fieldwork locale and to points of archeological and geomorphological interest in the more general area was also included. This survey involved review of previous work, discussions with persons knowledgeable about the archeology of the project area (i.e., Donald Hunter; David Jeane; and Dr. Hiram F. Gregory), and a field reconnaissance. The reconnaissance consisted of three elements: (A) intensive survey of a 28 ac area along Bayou Rigolette and Sam's Bayou); (B) riparian reconnaissance of 8.2 mi along Sam's Bayou and Bayou Darrow, from the dam on Sam's Bayou, to the Red River levee; (C) search for site 16GR4 (Indian Hill site); and (D) an intensive survey of a 23 ac area to be used as a borrow pit and disposal location on the left descending bank of the Red River, near the mouth of Bayou Darrow (Figure 1).

The report is divided into eight chapters. Chapter I sets out the background for the proposed work. Chapter II discusses natural environment. Chapter III presents the climate, geology, soil types, and the extent to which these factors can be marshaled to allow for the prediction of archeological sites. Chapter IV, "Prehistory of the Project Area," addresses the general prehistory of the state and the Red River area, and what is known of the specific prehistory of the project area. Chapter V addresses the history of the study area, from protohistoric times to the nineteenth century, and presents archival data on the specific construction sites. Chapter VI focuses on previous archeological investigations of the project area, within the context of the state as a whole. Chapter VII details the fieldwork that was carried out, presenting both a research strategy and the results of the fieldwork. Finally, Chapter VIII discusses the results of the fieldwork and presents a series of recommendations.

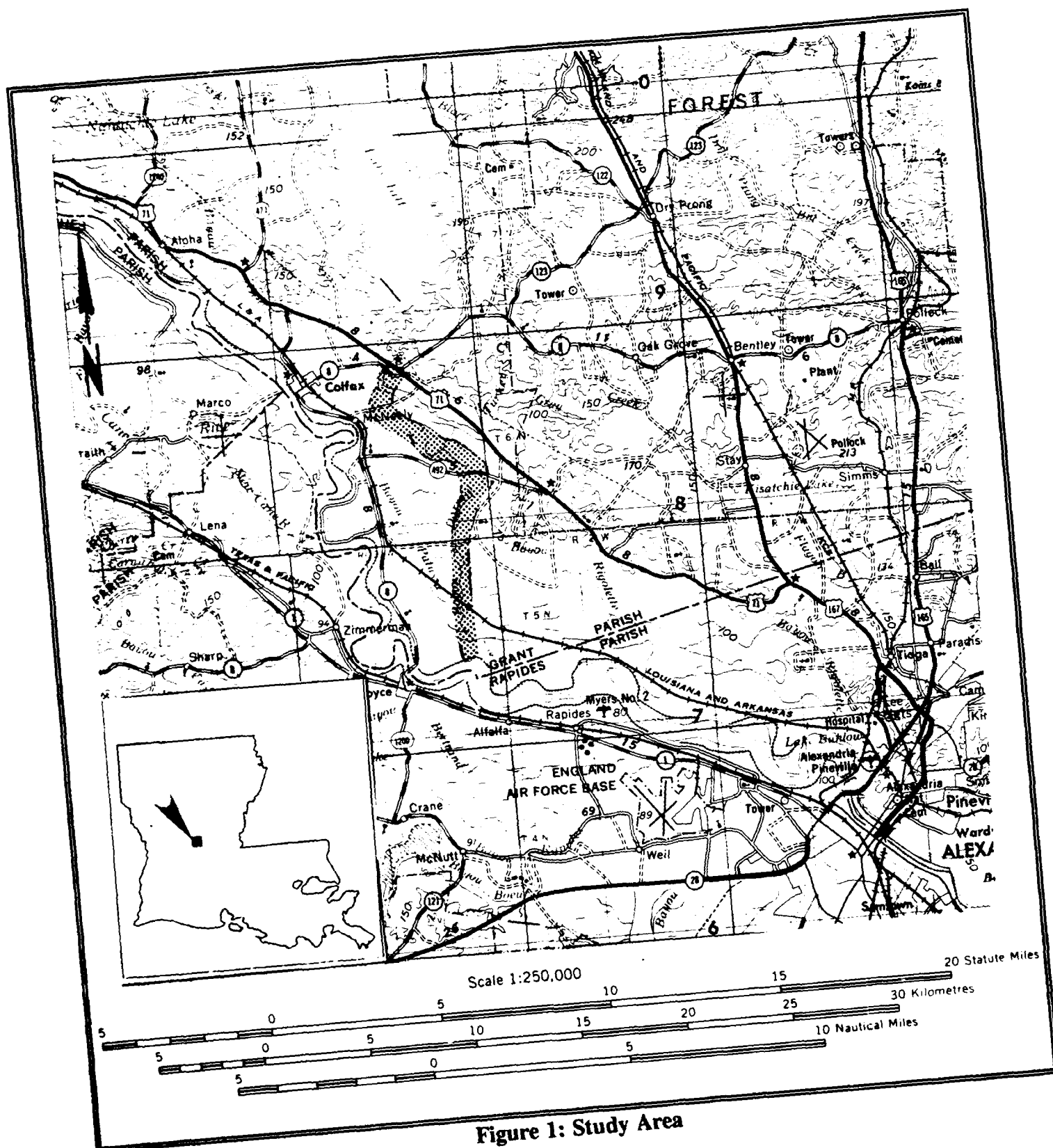


Figure 1: Study Area

CHAPTER II

NATURAL ENVIRONMENT

General

The project area consists of two natural environments. The first, which lies on the north side of Bayou Rigolette just north of the confluence of Rigolette and Sam's Bayou, is upland pine forest, consisting of dissected hills and intermittent streams that drain into Bayou Rigolette. Elevations vary from about 100 to 150 ft. The basic landform is Pleistocene terrace, with occasional Miocene outcroppings. Sandstone is frequent and is often found on the surface. Low areas in this province form raft lakes, such as Lake Iatt and Magnolia Lake. Forestation is primarily longleaf pine (*Pinus palustris*), with hardwoods evident in the floodplains of streams. The soil is of much lower fertility than the floodplain of the Red River Alluvial Valley.

The majority of the project area, however, consists of Red River floodplain. Here, alluviation extends to a depth of two or three feet near the confluence of Sam's Bayou and Bayou Rigolette, to many feet near the confluence of Bayou Darrow and Red River. The current flooding problem, which results partially from the impoundment of Bayou Darrow, also deposits great quantities of sediment in the area along Darrow, as well as on the south and southwest sides of Bayou Rigolette.

Biota

Red River Floodplain

This habitat includes a vast number of fish, mammals, reptiles and birds. Mueller and Newkirk comment that some 70 species of fish are known to occur in the Red River itself (Mueller and Newkirk 1981: 71). Common types are the gar, bowfin, shad, buffalo, catfish, sunfish, bass, crappie, and drum, all of which are found in the archeological record (Thomas and Campbell 1978). Most common mammals are cottontail rabbit (*Sylvilagus floridanus*), beaver (*Castor canadensis*), striped skunk (*Mephitis mephitis*), gray squirrel (*Sciurus carolinensis*), fox squirrel (*S. niger*), gray fox (*Urocyon cinereoargenteus*), coyote (*Canis latrans*), bobcat (*Lynx rufus*), raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), and deer (*Odocoileus virginianus*). In historic times, there have also been reports of bear (*Euarctos americanus*), cougar (*Felis concolor*) and wolf (*Canis rufus*). And, according to Lowery, there were reports of elk (*Cervus canadensis*) as late as 1820 from Colfax (Lowery 1974).

Birds are also quite common, and include a wide variety of hawks, owls, songbirds, gamebirds, and waterfowl. Representative species are the mocking bird (*Mimus polyglottos*), brown thrasher (*Toxostoma rufum*), Baltimore oriole (*Icterus*

galbula), cardinal (*Richmondia cardinalis*), and purple martin (*Progne subis*); such owls as the screech owl (*Otus asio*) and barred owl (*Strix varia*); waterfowl, such as the great blue heron (*Ardea herodias*); American egret (*Casmerodius albus*); snowy egret (*Leucophoyx thula*); Canada goose (*Branta canadensis*); mallard (*Anas platyrhynchos*); black duck (*Anas rubripes*); woodduck (*Aix sponsa*); green-winged teal (*Anas carolinensis*); canvasback (*Aythya valisineria*); both brown and white species of pelican (*Pelicanus occidentalis* and *P. erythrorhynchos*); birds of prey, such as the red-tailed and red-shouldered hawk (*Buteo jamaicensis* and *B. lineatus*); and scavengers, such as the turkey vulture (*Cathartes thula*). The waterbirds may have been particularly important in prehistoric times.

Amphibians include frogs and toads of a number of species and varieties (*Rana spp.*; *Hyla spp.* and *Bufo spp.*); sirens (*Siren intermedia*); Mudpuppies (*Necturus maculosus*); and salamanders (*Ambystoma spp.*).

Reptiles range from the alligator (*Alligator mississippiensis*), snapping turtle (*Chelydra serpentina*), alligator snapping turtle (*Macrolemys temminckii*), mud turtles (*Kinosternon subrubrum*), sliders (*Chrysemys floridana*), softshell turtles (*Trionyx spp.*), and others, to a large complement of snakes. The latter include watersnakes (*Nerodia spp.*), kingsnakes (*Lampropeltis spp.*), and several pit vipers (*Agkistrodon piscivorus*; *A. contortrix*).

The floral repertoire consists of a hardwood regime. Common trees are the water oak (*Quercus nigra*), nuttall oak (*Quercus nuttalli*), red oak (*Quercus borealis*), sweetgum (*Liquidambar styraciflua*), cottonwood (*Populus deltoides*), sycamore (*Platanus occidentalis*), shagbark hickory (*Carya ovata*), and pecan (*Carya illinoensis*). On the streams are willows (*Salix nigra*), and in the backswamps, cypress (*Taxodium distichum* Rich.). Main understory vegetation includes wild onion (*Allium spp.*), peppervine (*Ampelopsis arborea*), crossvine (*Anisostichus capreolata*), groundnut (*Apios americana*), and devil's walking stick (*Aralia spinosa*), as well as French mulberry (*Callicarpa americana*), water cress (*Cardamine pennsylvanica*), palmetto (*Sabal minor*), elderberry (*Sambucus canadensis*), and sassafras (*Sassafras albidum*), trumpet creeper (*Bignonia radicans*), rattan vine (*Berchemia scandens*), dewberry and blackberry (*Rubus spp.*), among others (Mueller and Newkirk 1981: 85-86).

Uplands

Flora and fauna of this province are also quite varied. Of the birds, the waterfowl are largely restricted to the floodplain, although waterbirds may be found on the raft lakes. Two avian species not present in the floodplain, however, are the red cockaded woodpecker (*Picoides borealis*), now an endangered species, and the wild turkey (*Meleagris pavo*). Of the two, only the latter would have been of economic importance to prehistoric and historic groups.

Most, if not all, of the mammals cited above are also found in this habitat. Some, like the beaver, however, are restricted to the streams that dissect the hills and ridges. The amphibian life is somewhat more attenuated, with the characteristic species that inhabit rivers (e.g., mud sirens) only present in the raft lakes. Likewise, reptile life, while overlapping with that of the floodplain, features some species found only in the pine hills, such as the pine woods snake (*Rhadinaea flavilata*).

The most obvious differences on the uplands are to be found in the vegetation. Here, the dominant trees are pines (*Pinus echinata* and *P. pallustris*), with hardwoods occurring around the raft lakes and in the stream bottoms. Understory vegetation includes wild onion (*Allium spp.*), Devil's walking stick (*Aralia spinosa*), trumpet creeper (*Begonia radicans*), and rattan vine (*Berchemia scandens*), all found in the floodplain, as well, and other vegetation more strictly characteristic of the uplands. The latter category includes the Indian turnip (*Arisaema triphyllum*), aster (*Aster spp.*), winter huckleberry (*Vaccinium arboreum*) and summer huckleberry (*Vaccinium ellioti*), among others (Mueller and Newkirk 1981:85-86).

CHAPTER III

GEOMORPHOLOGY

Introduction

The study area is in the southwestern part of Grant Parish, which is in the central part of Louisiana. The area is in the southern hills section of the central Gulf Coastal Plain. The major streams are Bayou Darrow and Bayou Rigolette. They drain Lake Iatt to their north and are tributary to the Red River, which continues out of the area to the Gulf of Mexico via the Atchafalaya River.

Most of the area is mapped as Quaternary alluvium, with small outliers of Prairie Terrace along the northeast and northwest edges. Fluvio-deltaic deposits of Tertiary age underlie the entire region. The land surface is level to gently undulating, with local relief of less than five feet on most parts of the floodplain. Elevations average about 85 ft AMSL on the floodplains and about 100 ft AMSL on the nearby hills. The soils are generally loamy and clayey. The entire area is rural, and the land is used for woodland, cultivated cropland, and pastureland.

Mueller and Newkirk (1981) provided a detailed description of the natural environment of the Red River valley in Louisiana, including its geologic history, which incorporated many earlier studies. Fisk's 1938 report on the geology of Grant Parish and his 1944 study of the Mississippi valley remain as points of departure for modern geologic investigations of the region. Fisk's studies have been updated by other workers, primarily Saucier (1974) and by Autin et al. (1991). Kolb (1949), Smith and Russ (1974), and Russ (1975) provided geomorphic interpretations of the valley. Hyams (1939) and Dyer (1948) summarized the history of the great log raft. Snead and McCulloh (1984) compiled a modern geologic map of the region, and Kilpatrick et al. (1986) produced a modern soil survey of Grant Parish. Goodwin et al. (1991) provided a discussion regarding the occurrence and preservation of archeological deposits in the Red River valley. The following report on the geomorphology of the area is synthesized from these studies, from study of aerial photos and published maps of the region, and from field observation.

Climate

Data recorded at Belah, Louisiana, and compiled by the National Climatic Center provide a climatic picture of the area. The area is in the humid subtropical region of the United States. The average daily temperatures are 49°F for winter and 81°F for summer. The annual average of 58 inches of precipitation occurs primarily through frontal activity in winter and from convectional storms in summer. About 50 percent of

the precipitation falls in April through September, which is also the growing season for most crops.

Winter is characterized by passage of cold fronts with rain, sometimes with snow and sleet, followed by several days of cool to cold, dry weather. Tornadoes are most common in spring, and rainfall is at its maximum in May. Summer is marked by heat, humidity, and convective rainstorms, especially in July. Hurricanes, most likely in September, occasionally bring high winds and heavy rainstorms. Drier weather arrives in October as high pressure cells from the northwest arrive again. Freezing conditions may be present between early November and mid March.

Geologic Background

The area is in the Gulf Coastal Plain province, which extends from Georgia to Texas in an east-west direction and from southern Illinois to the Gulf of Mexico in a north-south direction. The formations of the Red River alluvial valley dip southward toward the Gulf. As part of the Gulf geosyncline, they thicken southward. The Tertiary materials underlying the study area are considered to be Miocene in age. These deposits are fluvial and fluvio-deltaic, and they consist mostly of claystone with lenses of silts and sands.

Changes in sea level resulting from the advances and retreats of the Pleistocene glaciers have had a great influence on the geomorphology of the area. The lowered base sea level during times of glacial advance allowed entrenchment of the Red River, and raised base sea level during times of glacial retreat allowed alluviation to proceed in the valley. The total thickness of the Holocene fill varies from about 120 ft near the Louisiana-Arkansas boundary to about 300 ft near the confluence of the Red and Mississippi Rivers. It is composed of a lower graveliferous section, an intermediate section of clean sands, and a fine-grained topstratum.

During the Wisconsin Stage, which ended approximately 18,000 yr BP, sea level was about 400 ft lower than at present, and the Red River entrenched itself into the older deposits. When sea level began to rise at the beginning of the Holocene, the valley started to fill with sediments. Coarse-grained sediments were deposited first, and braided conditions prevailed along the course of the Red River. The deposition of this layer of coarse-grained material on the exposed Pleistocene and Tertiary surface produced the massive deposits which are now called the Holocene substratum (See Autin et al 1991).

Finer grained material was deposited as sea level rose. The larger gravels were replaced by sands, which now constitute some of the aquifers. As base sea level rose and the grain size of the material carried by the river became smaller, the Red River slowly took on meandering characteristics. It developed several meander belts as it moved from side to side in its valley. The fine grained topstratum of the valley was laid

down through the process of overbank deposition, which left behind natural levees, point bars, oxbow lakes, clay plugs, ridge-and-swale fills, and backswamps.

The meandering process which produced these features is still in operation today, although the rates and magnitudes may be different from those of the past. Portions of Bayous Darrow and Rigolette, as well as other major streams, such as Bayous Marteau and Patassa, were probably former courses of the Red River. The evidence for this is from borings done for past studies of the area, and in the size and shape of the curves of these bayous, which are consonant with the size and shape of the curves of the Red River. The date at which these bayous became separated from the Red River is probably well before 1830, and possibly a considerable time before European settlement. An exact date could not be found in the literature, and the presence of natural levees along the Red River indicates that the Red was in its present course long enough to build large levees. The nearby Cane River course was abandoned in the 1830's, and its old channel is larger than these bayous. The natural levees and the artificial levees constructed in recent years should be sufficient to prevent the Red River from re-occupying any of these streams.

Log jams, known locally as rafts, choked the Red River from the earliest days of European exploration and settlement, and probably in the prehistoric period. Until the rafts were cleared, in the 1830's, they caused diversion of river water into tributary valleys, which created lakes that were more or less perennial. Lake Iatt, to the north of the study area, was one such raft lake. During times of river water diversion, parts of Bayous Darrow and Rigolette undoubtedly served as secondary channels for the Red River.

There are some normal faults near the area due to the influence of the Sabine Uplift and three salt domes to the north. The faults have little or no surface expression. The closest is about 20 mi from the area. The latest time of movement from them is considered to be pre-Quaternary. Earthquake activity from any source is rare. The only events which may have produced earthquakes in the area since European settlement were the quakes centered at New Madrid, Missouri, in 1811 and 1812. Damage from earthquakes to any structures in the area is expected to be minimal.

Groundwater is primarily from Holocene-aged Red River Valley alluvium. The water in the substratum sands of this aquifer is probably under artesian pressure. Recharge is mainly from direct rainfall, with some recharge possibly from the underlying Tertiary formation or from the Red River.

The only production of mineral resources in the general area is from a few gravel pits. These, however, are not close to the construction sites.

Soils

The majority of the area is part of the floodplain of the Red River and has soils mapped as Moreland-Armistead-Latanier. The undulating area of natural levees closest to the Red River has Roxana-Gallion-Norwood soils, and the hilly areas along the edges of the study area have Gore-Kolin soils.

The Moreland-Armistead-Latanier soils are somewhat poorly drained, and they have a clayey or loamy surface layer with a clayey or loamy subsoil. Most of this land has long smooth slopes with a grade of less than one percent. These soils have a seasonal high water table from December to April, and some parts of the area are subject to flooding. These soils are well suited to pasture and woodland, but the wetness and flooding are limiting factors for agricultural and urban uses.

Roxana-Gallion-Norwood soils predominate on the natural levees of the Red River, along the southwestern edge of the study area. These soils are well drained and loamy throughout. This landscape is also one of long smooth slopes with a grade of less than one percent. These soils are quite fertile and are well suited to cultivated crops, pasture, and woodland. Moderate permeability and wetness, however, are limiting factors for urban uses and equipment handling.

Gore-Kolin soils occur on the hilly terrace areas along the northeast and northwest edges of the area. These hills have moderately well drained soils with a loamy surface layer and a loamy and clayey subsoil. They are moderately well suited for pasture and woodland.

Table 1 summarizes the limitations and suitability of these soils for various uses.

TABLE 1

SOIL SUITABILITY

SOIL MAP UNIT	CULTIVATED CROPS	PASTURE	WOODLAND	URBAN USES
Gore-Kolin	Poor: slope.	Moderately well: slope.	Moderately well: wetness, clayey subsoil.	Poor: wetness, slow permeability, shrink-swell, slope.
Moreland-Armistead-Latanier	Moderately well: wetness, poor tilth.	Well.	Well.	Poor: wetness, flooding, shrink-swell, slow permeability.
Roxana-Gallion-Norwood	Well.	Well.	Well.	Moderately well: moderate permeability, shrink-swell.

from Kilpatrick, et al., 1986, p. 102.

Site Prediction

Several principles and areas of specialized knowledge come into play when trying to predict human occupation of a particular site. Some desirable traits of a site would be availability of food plants, game, a fertile soil suitable for agriculture, proximity to water for consumption and transportation, and a location that would be defensible against enemies. Some undesirable traits would be poor agricultural conditions or a high potential for flooding. In an alluvial valley, the best sites would be on the natural levees of the major trunk stream, because these levees offer the driest, best-drained land for agriculture, and they are near water for transportation. Bank erosion and periodic flooding of levees and the nearby alluvial plain may have prevented permanent settlements of the levees along an active course, however.

In addition to shaping the land into forms that are more or less desirable for occupation, fluvial processes also influence the deposition and preservation of archeological deposits. Running water can erode a site, transport the artifacts, abrade them, and deposit them downstream. Vertical accretion of sediments can bury and preserve artifacts, but these sediments also serve to hide the artifacts from view of present-day researchers. Artifacts deposited after abandonment of a river course would remain as surface deposits, and, as such, would be subject to subaerial weathering and scattering. Preservation is also greatly affected by modern human intervention, such as destroying a site when digging for natural resources or plowing a field.

Knowledge of past landforms and streams, climatic conditions, the plants and animals of that past time, the presence of human beings at the site at that time, and the environmental preferences of the people then would form a basis for accurate predictions for archeological deposits. Unfortunately, the state of knowledge for such accurate predictions is quite rudimentary. Using only the general principles outlined above, the proposed construction sites in the Bayou Darrow-Bayou Rigolette area do not seem to have a high potential for prehistoric human occupation. The high water table, periodic flooding, and flat, poorly defensible location would not seem to make the area attractive for long-term settlement. The area may have been used, however, for hunting, fishing, and gathering. More likely areas for occupation would seem to be the hills along the north edge of the area, even though the hills have soils with less potential for agriculture. Any artifacts that might be preserved at the construction sites would likely be widely scattered spear or arrow points used in hunting that might have been dropped or lost.

On the other hand, it is known that historic Indian villages existed along the Red River between contemporary Alexandria and Colfax. This may possibly be attributed to historic rather than environmental factors, such as the migration of these tribes from other areas due to increased population pressures and conflicts.

CHAPTER IV

PREHISTORY OF THE PROJECT AREA

Paleo-Indian Era (?-6,000 B.C.)

It is not known when humans first reached North America or the Southeast. A series of well-documented finds, however, establishes that humans were in this hemisphere by the closing years of the Pleistocene Epoch, ten to twelve thousand years ago (Neuman 1984). These early people roamed the wilderness in small bands, hunting animals and gathering wild foods. While their hunting no doubt took in a wide spectrum of genera and species, many of the animals they hunted became extinct with the end of the Pleistocene or Ice Age, ten thousand years ago. Some of these extinct animals are the giant bison (*Bison antiquus*), the Mastodon (*Elephas antiquus*) and the sloth (*Megalonyx sp.*). These Paleo-Indians, as they are called, are poorly represented in Louisiana. The Avery Island Site (16IB23), in Iberia Parish, has been held by Gagliano (1964) to show a strong Paleo-Indian component, but other investigators are less sanguine (Neuman 1984:61-65). The Trappey Mastodon site (16LF63) in Lafayette Parish, does not seem to be associated with later artifacts found nearby (Neuman 1984:65-66). Indeed, the best evidence for Paleo-Indians in Louisiana seems to lie in the various stone projectile points of clear Paleo-Indian manufacture that have been found in various parts of the state. If one elects to extend the Paleo-Indian era as late as the year 6,000 B.C., then the evidence is somewhat more plentiful, to be found in the various collections of San Patrice points that turn up in different locales. The most notable site providing San Patrice points, *in situ*, is the John Pearce site (16CD56) in Caddo Parish, reported by the late Clarence Webb. Here, the San Patrice points were discovered in association with a number of other stone tools (Webb et al. 1971:70).

Meso-Indian Era

The end of the Paleo-Indian Era, in about 6,000 B.C., ushers in the Meso-Indian Era. By this time, the climate had become drier and warmer, with the sea reaching present levels. A rich environment provided modern species for hunting and many plant species for gathering. Deer, rabbit, shellfish, and nuts were all sources of food in this period. As in the European Mesolithic, the artifact assemblage is diverse and consists of tools used for exploiting botanical as well as faunal resources. This includes mortars, pestles, and mealing stones (Rue 1990). The atlatl, or spear thrower, also makes its appearance in this period, as do ceremonial burial patterns and the use of grave goods (Rue 1990; Neuman 1984). In general, the Meso-Indian period marks a time of adaptation to modern environmental conditions, during which the stage was set for the sedentary life style that developed in the succeeding Neo-Indian Era.

Neo-Indian Era (2,000 B.C. to A.D. 1600)

Virtually all that is known of the prehistory of Grant Parish and, indeed, of Louisiana as a whole, derives from this time period. It includes the beginnings of sedentary life, the development of mound building, the introduction of pottery and the bow and arrow, and the growth of large populations. While a number of fairly well-described culture periods occur in the Lower Mississippi Valley during the Neo-Indian era, in northwestern Louisiana the sequence is somewhat different, colored by the Caddo culture and its precursors, as well as influences from the Lower Mississippi Valley. Evidence of the first Neo-Indian culture, that of Poverty Point (2,000 B.C.-800 B.C.) is absent for the project area. Poverty Point, named after the site of that name in West Carroll Parish (16WC5), was apparently a network of communities spread over much of the southernmost portion of the Lower Mississippi Valley (Webb 1982). Traces of this culture are largely absent in the Red River region, probably due to geomorphological changes that have obliterated sites. The succeeding Tchefuncte culture (500 B.C. to A.D. 300) appears to represent a devolution in terms of socio-political complexity. Whereas Poverty Point communities appear to have consisted of several hundred and perhaps even several thousand people, and to have involved earthen constructions, the Tchefuncte people lived in small bands, in lacustrine and riverine environments and appear to have foraged and collected shellfish for a living (Ford and Quimby 1945; Neuman 1984; Shenkel 1974). The greatest concentration of Tchefuncte sites is in South Louisiana, but recently, Gregory et al. (1989) have reported Tchefuncte locations on the Dugdemona River, in Winn Parish. Unfortunately, Tchefuncte remains appear to be absent in the Red River region, again, probably because of the wandering river course. Thus, the first significant culture for the project area does not appear until relatively late. It and the succeeding cultures for this region are sketched below:

Bellvue Focus (A.D. 100-500)

This culture is named for a small mound site (16BO4) on Bodcau Bayou in Bossier Parish (Webb and Gregory 1986:3). This focus would appear to be the northwestern Louisiana equivalent of the Lower Mississippi Valley Marksville, and marks the beginnings of mound building and the interment of the dead within mounds. Webb and Gregory remark that Bellvue life was probably not terribly different from the preceding Meso-Indian life style, consisting of hunting, fishing and gathering. There is no indication of cultivated plants (Webb and Gregory 1986:3). The ceramics of this culture resemble those of Marksville and Troyville, of the Lower Mississippi Valley.

Troyville-Coles Creek (A.D. 700-1000)

In the Gulf Coastal chronology, the Troyville and Coles Creek cultures are usually treated together, as a single hyphenated entity. This is largely owing to the lack of a distinct Troyville culture in the coastal region (Gibson 1982). In northeast Louisiana, the tendency has been to distinguish Troyville from Coles Creek (Belmont 1982). In the

Yazoo river valley of Mississippi and much of north Louisiana, the term Baytown is utilized instead of Troyville.

This period coincides with the appearance of flat-topped or temple mounds, which served largely as platforms for ceremonial structures. Multiple burials are frequently found in these mounds, and these interments lack the care shown by earlier peoples in burying their dead.

Subsistence continued to involve hunting, fishing and gathering, but it is entirely possible that agriculture was introduced during this time. In addition, the bow and arrow made its appearance around A.D. 900.

Ceramics are usually clay tempered, although sometimes other materials were used. During Troyville times, a red film treatment was often applied to pottery. In addition, rocker stamping and cord marking were characteristic of this time. During the succeeding Coles Creek period, the upper part of pots was frequently decorated with horizontal, or sometimes oblique, parallel lines. In the Lower Mississippi Valley, check-stamping with a wooden paddle was often applied.

Gregory and Curry have posited several waves of Coles Creek influence up the Red River, and they suggest these waves are represented by three phases in the Natchitoches Parish area. These are the Lemoine, McNeely, and Campus phases, and they are associated with the building of large ceremonial centers (Gregory and Curry 1978:57-59).

Mississippian (A.D. 1000-1700)

The Mississippian period is represented by two distinct cultures in the Lower Mississippi Valley. One is a clear development from Coles Creek culture (Plaquemine) and the other (Mississippian proper) is represented by an apparent intrusion of ideas and artistic motifs from the Central Mississippi valley. Weinstein (1987), in discussing Plaquemine culture, in fact, suggests that Plaquemine is a mixture of the indigenous Coles Creek and these foreign, Mississippian influences. While Mississippian sites tend to be located in the northeastern corner of the state, and also exist in the St. Bernard Parish area, the Plaquemine culture sites occupy "a triangular region of which Greenville Mississippi, forms the apex and the entire Louisiana coastal zone forms the base" (Neuman 1984:259). Plaquemine sites tend to consist of flat topped mounds with a plaza area among mounds at multi-mound sites. In the northern part of the state there may be up to two dozen mounds at a given location. These sites were evidently vacant ceremonial centers, or islands in a region of dispersed population.

Subsistence appears to have been based on maize agriculture, although recent work at the Kleinpeter site (16EBR5) by Jones et al. (1991) suggests that fish could have also sustained whatever population might have inhabited the mound precincts proper.

Artistic motifs include elaborations or developments of a number of designs from Coles Creek times. The characteristic Coles Creek Incised ceramic design, for example, becomes a rather sloppily done series of parallel lines in Coles Creek Incised, *var. Hardy*, and the fine oblique lines of Mazique Incised, *var. Mazique* and *King's Point* degenerate into the poorly done wet-paste incisions of Mazique Incised, *var. Manchac* (Phillips 1970). Other, more strictly characteristic Plaquemine designs are also present, such as the curvilinear motifs of Leland Incised and Fatherland Incised and the block or rectilinear motifs of L'Eau Noir Incised. Also, brushing becomes a popular treatment in this period, as evidenced by Plaquemine Brushed. Mention should also be made of Maddox Engraved, a type of ceramic that appears to have been traded and/or made up and down the Red River from Plaquemine into historic times. The Natchez and Tensas are examples of historic groups who probably developed from the Plaquemine culture.

Mississippian culture shares much with Plaquemine, including the building of large, multi-mound complexes. Also notable is the presence of shell and copper artifacts in Mississippian contexts. Their ceramic vessels are described by Neuman:

Mississippian vessels are short and tall globular jars with straight, everted, or recurved rims; deep and shallow bowls; plain and compound long-necked bottles; straight rimmed-plates; footed vessels; teapot shaped vessels; gourd forms; and effigy vessels depicting humans, mammals, amphibians, reptiles, birds, and fish (Neuman 1984:275).

Also characteristic of Mississippian ceramics is the presence of shell as a tempering agent. This material, which probably derived from *Rangia* and *Unio* beds in brackish and fresh water, respectively, was ground up and added to the pottery paste. Characteristic types of Mississippian pottery are Cracker Road Incised, an analog to the Plaquemine Leland Incised, and the standard plain ware, Mississippi Plain. The finely ground shell reduced the plasticity of the clay and allowed the production of some of the Southeast's finest ceramic vessels. It is likely that the practice of using shell for temper originated at the mound site of Cahokia, in Illinois, and spread from there to the eastern United States (Neuman 1984:275).

Finally, mention should be made of the Mississippian ceremonial complex or Southern Cult, which began about A.D. 1000 and existed until about A.D. 1500. The cult, if such it was, featured such motifs as the sun, the cross, the circle, the eye, the hand and eye and death designs, on gorgets, pendants, copper plates, and ceramics, many of which were found as burial goods for high status individuals. The complex crossed cultural boundaries in the United States and it is possible that its impetus derived from Mexico (Neuman 1984:277). It is impossible to say whether the complex reflects political hegemony of one group over another or simply represents the diffusion of religious and artistic ideas.

Caddo (A.D. 800-1835)

Because the Caddoan Indians were the dominant prehistoric (and historic) indigenous people in northwestern Louisiana, the archeology of the area reflects what is known of this rather diverse group. Caddoans, however, received influences from (and presumably imparted influences to) the cultures of the Lower Mississippi Valley, so that the chronology of northwestern Louisiana is not a clear sequence of periods reflecting a single culture. Further, Caddoan chronology has been subject to a number of revisions (See Heartfield et al. 1977). In the interests of clarity, the scheme utilized here is that presented by Smith et al. (1983). They have reduced Caddoan history to five stages, Caddo I-V. These run parallel to the cultures of the Lower Mississippi Valley.

Caddo I (A.D. 800-1100). Webb and Gregory (1986) write that between A.D. 800 and 1000, the first Caddoan culture replaced the dominant Coles Creek culture in the four state area of northwestern Louisiana, northeastern Texas, southeastern Oklahoma, and southwestern Arkansas. This emergent Caddoan culture owed many things to Coles Creek, including general settlement pattern and use of the bow and arrow. Like Coles Creek peoples, they made stone or clay effigy pipes and smoked tobacco ceremonially. Pottery types were generally similar to Coles Creek varieties. In addition,

The Caddo retained strong religious and civil authority in the villages and the major ceremonial centers and were organized under a chieftain type of authority. There are similarities to Coles Creek, finally, in Caddoan ceremonial festivities, games, and customs of burying the dead in mounds alongside the plazas (Webb and Gregory 1986:5).

At the same time, however, there seems to be a Middle American origin for other traits. Webb and Gregory mention the bottles and carinated bowl and the technique of burnishing or polishing the exteriors of vessels to produce glossy mahogany brown or black surfaces. After firing, the surfaces were often engraved. Curved motifs such as concentric circles, spirals, scrolls, meanders, volutes, swastikas, and stylized serpents are common. Also present was the practice of burying the elite in shaft graves, sunk into mounds or special cemetery areas (Webb and Gregory 1986:5). Other Mexican traits include the long-nosed god and the feathered serpent.

Caddoan society was organized into a number of large ceremonial centers, such as the Gahagan (16RR1) and Mounds Plantation sites (16CD12). At the same time, however, many Caddoan farmers lived in nondescript hamlets, only loosely connected to the major centers.

Caddo II and III (A.D. 1100-1400). By A.D. 1100 the large Caddoan ceremonial centers began to fade away, with the people choosing, instead, to live in small family groups along streams and other waterways. The contact with other culture areas seems to have diminished and few exotic materials are found. Webb and Gregory see this as a

"calm period of pastoral life," noting that Caddoan settlements virtually vanished between Natchitoches and Caddo Lake, possibly signifying the development of the Great Raft on the Red River. Excavations of sites dating to this period indicate thatched roof, clay-daubed houses; stone tools of local cherts; and few polished stone tools. Mound building continued, however, and several of these structures have been investigated.

Caddo IV (A.D. 1400-1600). Caddo IV sites include both mound and nonmound locations (Neuman 1984:243). Much of what is known of this focus derives from Webb's excavations of the Belcher site (16CD13) itself (Webb 1959). The Belcher mound showed a succession of levels, on each of which had once stood a house. Burials were placed in pits beneath house floors or in the ruins of burned houses. Food remains found in the course of Webb's excavations included maize, beans hickory nuts, persimmon seeds, pecans, mussels, snail shells, and bones of rabbits, squirrels, foxes, minks, birds, and fish. Tools included stone celts, arrow points with tiny pointed stems, scrapers and graters, sandstone hones, bone awls, needles and chisels, shell hoes, spoons and saws, and pottery spindle weights (Webb and Gregory 1986:16).

The pottery of the Belcher people was among the best in the Caddo area. There was a diversity of forms, as well as of decoration, with common techniques being engraving, stamping, incising, trailing, ridging, punctating, brushing, applique nodes, insertion of red or white pigments into designs, polishing, red slipping, bird and turtle effigies, and tripod and tetrapod legs. Ornate curvilinear designs, with scrolls, circles, meanders, spirals, and guilloches were also frequently present (Webb and Gregory 1986:16).

The dead were buried with vessels, and often several burials occur in the same shaft or pit. It would appear that some of the ceremonialism from previous Caddo periods carried over into Caddo IV times.

Caddo V (A.D. 1600-1835). At the time of the arrival of Europeans, the principal Louisiana Caddoan groups were the Adaes, Doustioni, Natchitoches, Ouachita, and Yatasi. Their territory in aboriginal times stretched from the Ouachita River west to the Sabine, and south to the mouth of the Cane River. These various groups had chiefs, or Caddi; each community generally had several of these chiefs, although other Caddoan groups only had "*tama*" or local organizers (Webb and Gregory 1986:19).

European influence had a powerful and destructive effect on the native American peoples. By the early nineteenth century the Caddo had been decimated by diseases and had begun to abandon their traditional hunting grounds. Groups of Choctaws moved into the area from the north. After 1830, most of the Indians in the area had been moved to reservations in Oklahoma, although some still continued to occupy land in the region (Rue 1990:19).

CHAPTER V

HISTORY OF THE PROJECT AREA

Protohistoric Period

European explorers, lured by prospects of gold, began exploring the Southeast United States within decades after Columbus' arrival in the New World. The Spaniard Hernando de Soto became the first European interloper, traversing the area in 1542, although his exact route is disputed. In 1682, the Frenchman Robert Cavalier Sieur de la Salle explored the Mississippi River in North Louisiana but did not explore the hill country, where the study area is located. In 1700, Jean Baptiste Le Moyne Sieur d'Bienville and Louis Juchereau St. Denis explored the Ouachita River and some of the nearby hill country of Louisiana and named Bayou D'Arbonne. The French established settlements along the Mississippi River during this period to maintain their claim to Louisiana. By 1740, settlers were living along the Red and Ouachita Rivers. In 1762, France ceded Louisiana to Spain (Williamson and Goodman 1939:9-28).

In order for Spain to maintain its claim to North Louisiana and to protect settlers, it established Fort Miro in 1785 under the direction of don Juan Filhiol, on the site of present day Monroe. The fort was named for Louisiana Governor Esteban Miro. After four decades of rule, Spain ceded Louisiana back to France. In 1803, the United States acquired Louisiana from France (Williamson and Goodman 1939:29-59).

President Thomas Jefferson, in the interest of exploration, settlement, and natural science, sent two expeditions into Louisiana to report on the natural flora, fauna, and physical geography of the Red River. Additionally, he was interested in the Red River because it was believed to be a good route to Santa Fe. Having sent his best naturalist-explorers on the Lewis and Clark Expedition, Jefferson relied on his friend William Dunbar to lead a short expedition to Louisiana. Dunbar was familiar with the Mississippi River area, having established plantations near Natchez and Baton Rouge in the late 1700s. In the fall and winter of 1804-1805, Dunbar and Dr. George Hunter led a short expedition up the Red and Ouachita Rivers. Then, in April of 1806, the Thomas Freeman and Peter Custis Expedition left Fort Adams below Natchez to explore the Red River to its source (Flores 1984: 3-45,99). This later expedition noted several Indian groups in the vicinity of the project area.

Later, several Indian groups who lived in the vicinity of Mobile were resettled on the Red River following the Treaty of Paris (1763), but most of these sold out and moved further west as the valley was settled by Europeans. For the present study, the most significant of these groups were the Pascagoula and the Apalachee. Both groups migrated into the area from the Gulf coast during the late eighteenth century. At least one village of the Apalachee has been identified through archeological investigation near

the former mill town of Zimmerman, about three kilometers northwest of Boyce (Whelan and Pearson 1983).

Immediately west of the study area, at least two major land parcels were obtained from Indians by European settlers. The claims of Joseph Gillard (Sec. 18, T.5N-R.3W) and William Miller and Alexander Fulton (Sec. 5, T.5N-R.3W) were both carved out of lands occupied by the Pascagoula and Apalachee (Hunter 1990a; American State Papers Vol. 2). The movements of these groups have been detailed by Swanton (1911), and recent archeological and historical investigations have provided a detailed picture of the aboriginal occupation sites of the Apalachee located in Section 5 (Whelan and Pearson 1983, Hunter 1990). Because of the proximity of the Apalachee village, it is likely that during the late eighteenth of early nineteenth century some of the Apalachee lived along one or more of the natural waterways currently under investigation. In 1803 the Taensa sold a large tract of land that they and the Apalachee occupied to two land speculators, Alexander Fulton and William Miller. The property was located about 25 mi above Rapides. Although the sale was eventually validated, apparently the Apalachee never agreed to the terms of the sale, and may never have been paid. The price was \$3,000 but the speculators did not pay, claiming in 1814 that the deed was given for debts contracted by the Coushatta tribe. Despite reports that the Indians had vacated the property, the Apalachee and Taensa remained on the land after the sale (Hunter 1990a:20-21). The dispute over ownership of the property continued for several decades.

European Occupation

During the early eighteenth century the French began exploring the Red River valley, making contacts with local Indian groups and expanding their influence westward to the Sabine River region which was claimed by the Spanish. With the establishment of an outpost at Natchitoches, the Red River became the single most important route used by the French, and after 1763 the Spanish, to maintain contact between New Orleans and the scattered European settlement in the Natchitoches region. The significance of the Red River to the European settlement of the region may be summarized as follows:

The Red River valley occupies a relatively small portion of northwestern Louisiana, however, this fertile five to twelve mile wide corridor has had a major impact on the development of the entire state. The river provides a vital transportation link for Louisiana's northern sector, and the valley's rich red bottomlands contain some of the best cotton land in the South. Perhaps more than any other factors, river transport and cotton have influenced the historic development of the Red River valley (Mueller and Newkirk 1981:115).

Because of the significance of the Red River as a transportation link between the lower Mississippi River and the areas to the northwest, all of the early European

occupation in northwest Louisiana occurred within a few miles of its banks. Post du Rapides (Pineville opposite Alexandria), the earliest European settlement in the area, was founded in 1723 by the French (Newkirk and Mueller 1981:119). The Rapides post was important because it provided a secure post along the route to Natchitoches and because the great raft effectively blocked the Red River above present day Colfax, making Rapides the head of navigation for most vessels until Shreve cleared the raft in 1833 (McCall 1984:196-204). After the establishment of Rapides, European settlers began moving into the rich agricultural bottomlands and the hill country overlooking the Red River floodplain. When the Spanish gained control of Louisiana in 1763, the Rapides area experienced an increase in activity because the Red River route became part of the route which linked Louisiana with Spain's other colonial settlements in the Southwest.

During the mid 1770s commercial agriculture was based on cattle raising, tobacco and indigo, but by the early nineteenth century, the Alexandria area had switched to sugarcane and cotton. Navigation on the river was by pirogue, flatboat and keelboat until after Louisiana was purchased by the United States in 1803. Steamboat navigation began on the Red River as early as 1820, and the sidewheel packet *Beaver* was one of the first steamboats to ascend Red River above Alexandria (Eakin 1976:15). The introduction of the steamboat was very important to the development of the plantation system along Red River because plantation owners were then provided with a fast, economical means of shipping goods to New Orleans and for delivering supplies on the return trips.

By the early nineteenth century the slave-based plantation system was well established in the Alexandria area, and most of the early land purchases or grants made within the project area were in parcels in excess of 400 acres. With the removal of the raft in 1833, trade along the Red River increased dramatically, and settlement of the Bayou Rigolette/Bayou Darrow area was completed within a decade.

Because of the presence of the rapids or falls at Alexandria, transportation in the region was limited during times of low water. Goods being produced in the Grant Parish study area were sometimes carried overland to boats waiting below the rapids.

Cotton plantations dominated the pre-Civil War Red River economy. Success of plantations was based on a combination of large landholdings, fertile alluvial soil, slave labor, water transport to cotton markets in New Orleans, and to a planter-merchant alliance. On the north side of Red River, the narrow valley was defined by nearby hills. Small farmers were forced out of the valley into the hills by wealthy planters. For this reason the poor whites settled in the pine hills. They had no capital, slaves or good land for cotton production so played little role in local economics. This valley/hills dichotomy was reflected in both land prices and in cotton production. For example during the year of 1860 in Rapides Parish, 120 of 830 farms accounted for 90% of the land values in the parish, and 83% of the 1859 cotton crop was harvested from holdings that produced a minimum of 200 bales (Mueller and Newkirk 1981:126).

The local economy was shattered by the Civil War and Reconstruction. The lack of a labor force encouraged the institution of sharecropping, and along with sharecropping and tenant farming came a dispersal of plantation workers' housing (Prunty 1958; Highsmith 1955).

With the introduction of modern mechanized farming during the twentieth century, larger land holdings were emphasized and the demand for farm labor declined. This change led to rural depopulation of the valley. Blacks began moving to northern and urban centers, so numbers of Blacks working on plantations has declined (Highsmith 1964; Mueller and Newkirk 1981:132).

At the turn of the twentieth century, pine lumbering became a leading economic activity in Pineville/Alexandria area. Important lumber companies included the J.A. Bently Lumber Co., Urania Lumber Co., Bodcaw Lumber Co., and Industrial Lumber Co. The expansion of the lumber industry directly related to late 19th century railroad development. By the early twentieth century railroad commerce had exceeded river traffic (Hunter 1990b:51).

Even as late as 1947, 22% of farm land in Grant Parish was operated by tenants; the rest was owner operated. The non-owners were either renters or share-croppers. At that time a common charge was 25% of the crop if the tenant owned tools and workstock, 40-60% of the crop if the landowner provided the tools (La. Department of Public Works 1947:30). In recent years pecans have become an important crop.

Historical Research of Specific Construction Sites

Most of the historical research for specific site locales was conducted in the records of the Grant Parish courthouse and in the Louisiana State Land Office. Grant Parish was established in 1869 and was formed from the northern part of Rapides and southern part of Winn parishes (Louisiana Department of Public Works 1947:1-9). The availability of records was somewhat limited because the Rapides Parish courthouse burned in 1864 and the Grant Parish courthouse burned in 1878, destroying most of the local records covering the first three quarters of the nineteenth century. This record gap between the 1830s and 1878 included the time period during which most of the land within the study area was purchased and settled by the Anglos.

Although the various survey segments cross land grants dating to the late eighteenth or early nineteenth centuries, the primary locus of settlement appears to have been along Bayou Rigolette. Bayou Darrow, the waterbody of greatest interest to the current study, appeared to be a smaller channel and was of lesser importance historically. The greater significance of Bayou Rigolette is demonstrated by the concentration of houses along Bayou Rigolette in contrast to the general lack of structures along Bayou Darrow as shown on the 1941 Boyce, Louisiana, quadrangle (Figure 2).

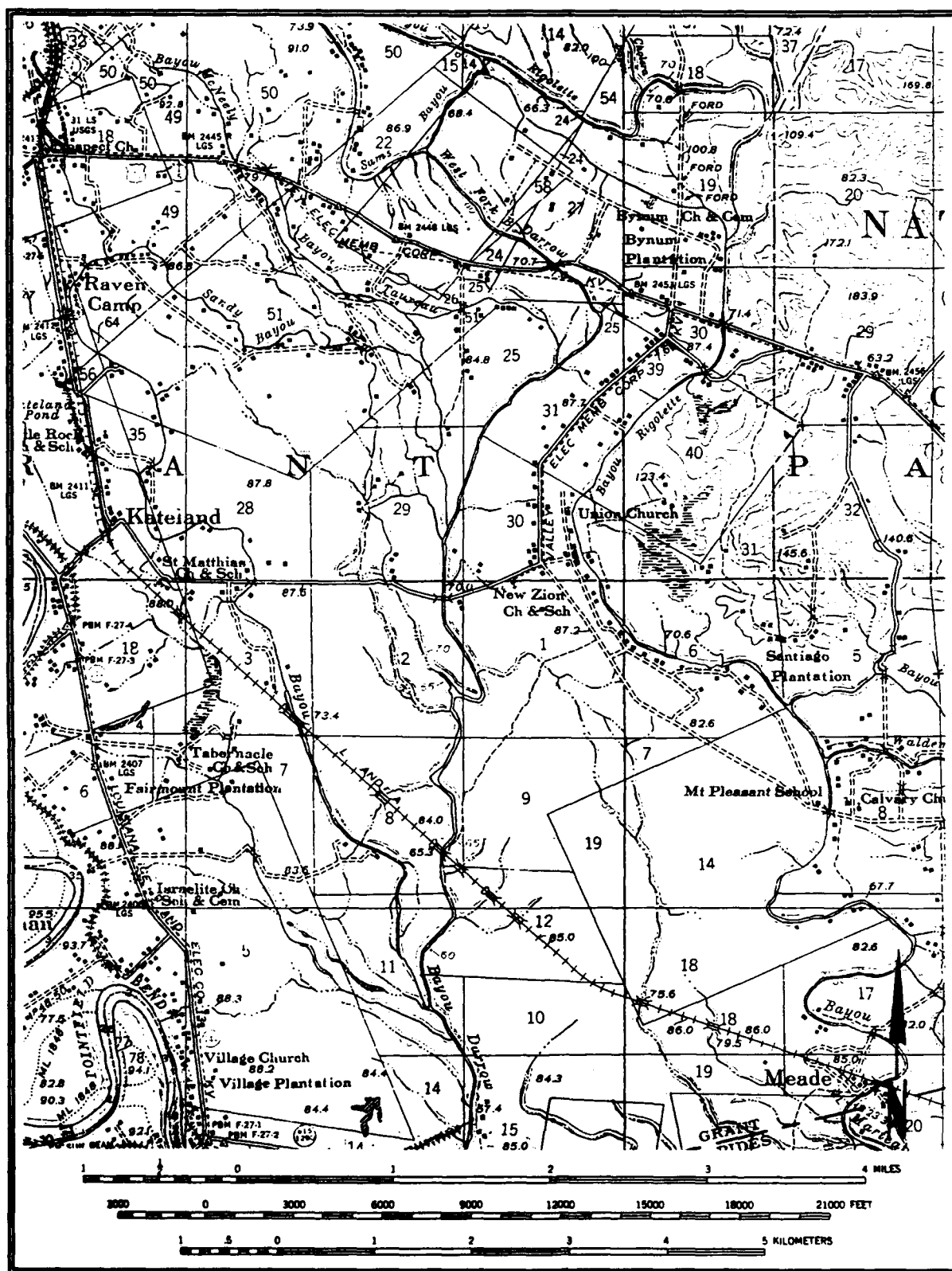


Figure 2: Excerpt from the 1941 USGS Boyce, La. Quadrangle

Site #1 (confluence of Bayou Darrow and Bayou Rigolette)

The property area of interest covers approximately 28 ac in Section 53, which was originally the eastern portion of Section 23, T6N-R3W. According to Tract Book 26 (Ouachita District, T.6N-R.3W T.16N-R.3W) in the State Land Office, Section 23 contains 677 ac (657.02 as per GLO letter "K" 2/19/21) and is listed as the claim of Antoine Floris. The Floris claim was confirmed in 1807 (Vol. 2, American State Papers:441) and the claim was disputed. The following description from the American State Papers provides additional background information on the original 400 arpent claim:

No. 59. The original title of the land claimed under this entry is believed to have been confirmed to John Dill, by commissioners' certificate B, No. 1043, under a notice entered by Charles Dill, who, it appears, became the purchaser of the land in the year 1798, the same having been sold as the property of John Blampin, the original proprietor and claimant, to satisfy a debt due from said Blampin to this claimant, (Antoine Flores.) It may be proper, however, to remark, that the claim originally appears to have been for no more than two hundred and forty arpents, being six arpents in front, by forty in depth; and the reason assigned in this claim for the entry being made for a larger quantity is, that the boundaries of the tract originally embraced four hundred arpents. The documents filed, however, do not appear to establish this fact, and no oral testimony has been adduced in the claim. (American State Papers Vol. 2:781)

The discrepancy in the amount of land included in the claim may have been part of the reason that the patent issue was delayed for over a century. Patent was not approved until April 14, 1921. The claim was challenged by Bpt.[sic] Garza in 1915, but Garza's name was crossed out in the tract book record, indicating that Floris won the dispute.

The Floris tract became the heart of a cotton plantation known as the Bynum Plantation which lasted into the twentieth century. In 1926 the Bynum Plantation included 3464 acres from Sections 14, 23, 24, 27, and 58 in T.6N-R.3W, and Sections 18, 19, 30 and 37 in T6N-R2W. The history of Bynum plantation between 1833 and 1878 is unclear because records were burned in the Rapides Parish courthouse during the Civil War, and the newly formed Grant Parish courthouse burned in 1878. The next recorded title transfer of the property is in 1915 when the plantation was purchased from the Methodist Episcopal Church of the South by the Red River Cattle Company. The plantation changed ownership eight times between 1915 and 1945. In 1945 the plantation was subdivided and the parcel of interest was purchased several more times, finally by Rodric D. Bushnell, the current owner (Table 2).

TABLE 2
Title Chain for Section 53, Township 6 North, Range 3 West

Reg No.	Source	Vendor	Vendee	Date	Acre	Description
62710	COB 146:50	Rodric D. Bushnell	L.B. Harrison	May 5, 1965	155	Sec. 53 (New Sec 14 & 15)
46443	COB 96:219	B.N. Sewell	Rodric D. Bushnell	1951	155	Sec. 53, etc.
38985	COB 78:315	Arthur Ammen	N.W. Homer	Sep. 28, 1945	1002	part of Bynum Plantation (includes Sec 53)
38338	COB 77:235	G.P. & E.W. Murphy	Arthur K. Ammen	Feb. 2, 1945	1014	part of Bynum Plantation (includes Sec. 53)
36736	COB 74:212	W. McCain & H.B. Thornton	Frank C. Murphy	June 7, 1943	3464	Bynum Plantation
35501	COB 71:464	H.B. Thornton	J.W. Richards & W. McCain	Aug. 8, 1941	3134	Bynum Plantation
33027	COB 64:548	H.B. Thornton	H.L. Carter	Feb. 10, 1941	3134	Bynum Plantation
31090	COB 60:376	Burdette B. Root et al.	H.B. Thornton	Dec. 13, 1938	3134	Bynum Plantation
31089	COB 60:372	J.B. Jameson	Burdette B. Root et al.	Dec. 13, 1938	3134	Bynum Plantation
19494	COB KK:46 3	Red River Land & Cattle Co.	J.B. Jameson	Feb. 6, 1926	3415	Bynum Plantation
11410	COB Y:8	Meth. Epis. Church South	Red River Land & Cattle Co.	Oct. 20, 1915	3415	Bynum Plantation
No recorded transactions between 1878 and 1915. Source: Conveyance Record Books, Grant Parish Courthouse						

The plantation must have still been relatively intact in 1941 because the names "Bynum Plantation" and "Bynum Ch & Cem" appear on the 1941 USGS quadrangle map. Bynum Church and Cemetery were located along the south bank of Sams Bayou near the center of Section 19 (T6N-R2W) in 1941 (USGS 1941) but by 1956, the cemetery had moved west along Sams Bayou to Section 53 (originally 23) just southeast of the study area (USGS 1956). Six structures appear in Section 23 on the 1941 quadrangle map (USGS 1941). Bynum Plantation also appears on a 1908 map of Grant Parish. Although this map lacks the detail of the USGS quadrangle, it does indicate "Bynum School" on Bynum plantation, and also shows a road in the same location of modern Highway 492, the Colfax-Pineville Road (McKnight and Carver 1908). Assuming that the plantation was still intact during the 1940s, the dispersed pattern of structures on the 1941 map indicates that they probably represent houses of tenant farmers. Such a dispersed pattern was common on cotton plantations after the Civil War (Prunty 1958). The small cluster of structures near the south end of Section 19 suggests that the main plantation building complex may have been located in this area. By 1956 most of the tenant houses were gone, and settlement began to concentrate along Hwy 492, the main traffic artery of the area. The name "Bynum" does not appear on the 1956 or subsequent maps.

Site #2 (Bayou Darrow)

Site No. 2 is located along Bayou Darrow between the Red River artificial levee in Section 14 (T5N-R3W) to the confluence of Bayou Darrow and Sams Bayou in Section 23 (T6N-R3W). The northern portion of Bayou Darrow crosses Sections 23, 24, 27, 25, 31, 30, and 29 in T6N-R3W. The southern portion of Bayou Darrow crosses Sections 1, 2, 8, 9, 11, 12, and 10 in T5N-R3W. All of the southern portion of Bayou Darrow was purchased by Isaac Baldwin except for Section 12, which was granted to Adam Huffman (Hoffman) in 1823.

Along the northern portion of Bayou Darrow (T6N-R3W), four arpent grants were issued: Section 23 (discussed previously), Section 24, Section 27, and Section 31. Non-arpent (American) grants included Sections 25, 29 and 30. Section 24 represents a narrow sliver of land located between two larger arpent grants (23 and 27). Section 24 was purchased by Sterling G. Bray in 1831. Most of Section 25 (446 acres) was purchased by Jean B.A. Gillard in 1888. The remaining 29 acres were purchased by William H. Osborn in 1859 and by Felix Reynaud, agent for New Orleans Pacific Railroad Co. in 1888. Section 27 was purchased by William Miller in 1825, then sold to Horatio S. Sprigg and Samuel Glenn in 1831. The east half of Sec 29, (T6N-R3W) was purchased by Volizard DeBlanc on January 17, 1834. It is interesting to note that a Pascagoula Indian chief named De Blanc sold land to Joseph Gillard along the west side of this same township in the vicinity of the community of Kateland. Also, a Volizard De Blanc served as the commandant at Natchitoches in 1796 (See #67 in American State Papers, Vol. 2). The east 1/2 of Section 30 was granted to Ann Gill in 1832 and the final patent was approved in 1837. The west 1/2 of Section 30 was granted to Jean M.

Gillard in 1833 and patented in 1837. Section 31 was also divided; 885 acres went to Louis Lamber and 348 acres to Jacques Dupuis. Both claims were verified in 1823 (Louisiana State Land Office, Federal Tract Books 25a and 26).

Site #3 (confluence of Bayou Darrow and Red River)

This site is located along the boundary between Sections 14 and 15, Township 5 North, Range 3 West. According to Tract Book 25a, (Ouachita District, T16N-R2W T5N-R3W) Section 14 contained 396.3 ac and was purchased by Isaac Baldwin for \$1.85 per acre on Oct 13, 1832. The patent was not approved until Jan 15, 1858. Baldwin, a planter and attorney from Alexandria (Hunter 1990a:26) appeared to be expanding his Village Plantation because he bought sections 1, 2, 3, 6, 7, 8, 9, 11, 13, 14 between 1830-1832. Sections 1, 2, 3, 8, 9, 10, 11, 13, 14, 15 were all patented on Jan 15, 1858. Baldwin also received patent on Sept 11, 1925 (instructions from "K" 8/24/25) to fractional lots 6 and 7, which were purchased on Nov 27, 1830. Section 15 was purchased by Robert C. Hynson (94 ac) and William Hayden (301 ac) in 1832. The patents were approved in 1858 (Louisiana State Land Office, Federal Tract Book 25a).

In 1820 Baldwin had purchased the possibly fraudulent Miller and Fulton Apalachee claim (Section 5, T5N-R3W) and with the purchase of these other lands claimed by the Apalachee, he created one of the largest plantations in the state. The questionable legality of these purchases was raised in 1832, but no investigation was ever conducted. Despite threats by the Anglo plantation owners, the Apalachee remained in the area until at least 1922 (Hunter 1990:26-29). The Baldwin family evidently still owned some of this property as late as 1925.

In 1890, Bayou Darrow served as the boundary between Village Plantation, owned by Thomas H. Smith, and Thornbush Plantation, owned by C.S. Johnson (Red River Survey 1890:Sheets 43 and 44). Several structures representing possible tenant houses were located along the east side of Bayou Darrow near its confluence with Red River.

The recent history of this property was not determined. Two structures appear on the 1941 Boyce quadrangle (USGS 1941) on the batture side of the artificial levee near the western edge of Section 14. Four additional structures occurred along the east side of Bayou Darrow in Section 15 in the same vicinity as the possible tenant houses noted on the 1890 map. The function of these structures could not be determined.

CHAPTER VI

PREVIOUS INVESTIGATIONS

Introduction

This section will discuss previous cultural resources investigations in the vicinity of the current study area. Discussions will be oriented toward providing a general framework for these current investigations.

Archeology of the Red River Above Alexandria

Several summary accounts of previous investigations conducted in the vicinity of the project area have been published to date. The first was that of Robert W. Neuman, which appeared in a review document prepared in connection with planning for the Red River Waterway (Neuman 1970). Following Neuman's work, an excellent *precis* was prepared by Mueller and Newkirk (1981). Neuman again dealt with this area in his 1984 introduction to the archeology of the state (Neuman 1984), and, most recently, Goodwin et al. (1991) considered previous investigations in their survey and testing program along the Red River, in Grant and Natchitoches Parishes, for the Vicksburg District of the Corps of Engineers. Other summaries appear in reports by Heartfield et al. (1978); Thomas et al. (1978); and Gregory and Curry (1978). Neuman's work is valuable for drawing together a number of disparate investigations. The Mueller and Newkirk work, however, is more complete, and carries its bibliography up to the time the report was written. The most complete and up-to-date, however, is to be found in the Goodwin work.

A brief report to the Smithsonian Institution by T. P. Hotchkiss of Shreveport is, according to Neuman, the earliest publication related to the antiquities of the Red River region in Louisiana (Neuman 1970:4). Hotchkiss reported that in the course of well-digging in 1867, near the junction of Cypress Bayou and Wallace Lake, in Caddo Parish, an Indian grave and associated artifacts were exposed at a depth of 32 ft. He detailed a series of four dart points, lined up with "the points directed from the body" (Hotchkiss 1873). The largest of these was 11.5 in long. He also commented on a site a mile and a half above Shreveport, from which human bones and artifacts were being eroded at a depth of 18 ft (Hotchkiss 1873). In the same year, Charles Colcock Jones, Jr., produced a volume on southern Indian antiquities. This volume illustrated two ceramic vessels said to be taken from an Indian burial ground near Shreveport (Jones 1873).

Probably the first scholarly attempt to deal with the antiquities of this region was that of George Beyer, who visited to the Larto Lake mounds, in Catahoula Parish. He also described work at the Henry Mound, near Campti, Louisiana, in Natchitoches Parish (Beyer 1896). Here, human remains, ceramics, stone and shell were recovered.

Particularly striking to Beyer were the swastika and Maltese cross motifs on items from this site, which led him to speculate that these designs indicate "an introduction of foreign thought and element" (Beyer 1902:22). Beyer next visited a mound 12 mi north of Campti, on Clear Lake, in which he found evidence of "a prehistoric signal fire." (Beyer 1902:25).

Following these studies by Beyer, the next work of importance was that of C. B. Moore, who conducted a survey trip along the Red River (Moore 1912). Moore was the first to excavate the Gahagan Mound (16RR1) in Red River Parish, and he also studied a number of sites in Avoyelles Parish. In the intermediate area, he investigated sites near Colfax. Compared with the results of Moore's other investigations, the outcome of these efforts disappointed him:

Throughout the Red River region in Louisiana, one hears almost nothing of the finding of bones or artifacts, and we know it requires but few discoveries to start considerable talk. But little seems to have been placed in such mounds as there are in that region (Moore 1912:485).

The Colfax Mound Site, now identified as 16GR10, was found to have a 20 ft pothole in the summit. Moore wrote of this mound: "The soil of the mound is sandy clay containing masses of sandstone, some more than 2 feet in diameter (Moore 1912:509)." Seven trial holes in the unexcavated portion of the structure, and examination of backdirt from the pothole, were all unproductive. Regarding the environs, he states that "The area surrounding the mound gave no indication of having served previously as a place of abode" (Moore 1912:509). On Boggy Bayou Mound he found a hill believed by locals to also be an Indian mound (16GR14). He describes an excavation 34 ft x 21 ft x 7.5 ft deep that had been placed in the mound by persons unknown. On examining the fill, he wrote that: "The mound is composed of coarse sand, much of it red, but not artificially colored, with a few small masses of sandstone scattered through it." (Moore 1912:509). His seven trial holes were sterile and no artifacts were found in the surrounding area. Only at the Dunn place was Moore successful in recovering evidence of aboriginal occupation. At this location, he sank 48 trial holes, twenty-eight of which showed midden. While no human remains were uncovered, he and his crew were able to recover fragments of flint and bone tools. He also reports that a single sherd, coated on both sides with red paint, was found (Moore 1912:510).

The results of Moore's excavations at the Colfax and Boggy Bayou mounds offer insight on sites located in the project area. It seemed odd to Moore that neither Boggy Bayou mound (16GR14) nor the Colfax mound site (16GR10) yielded artifacts (Moore 1912). It is thus possible that Moore realized that prehistoric groups favored occupying the numerous natural formations in the area, as, indeed, they occupied so-called "pimple mounds" in other parts of the state (Jones and Shuman 1988).

After Moore, the next contingent of archeologists to visit the Red River area were those who came under the auspices of the Smithsonian Institution, beginning in 1926. In addition to his well-known work at Marksville (16AV1), Gerard Fowke also reported on sites 16CD12; 16CD13; and possibly 16DS12; 16RA5; 16AV2; 16AV13; 16AV22; and 16AV33 (Fowke 1927; 1928). Neuman observes that between the Arkansas/ Louisiana state line and Marksville, Fowke reported 48 mounds, as well as several villages and campsites. But Neuman suggests Fowke also misconstrued the prevalent pimple mounds of the area as being largely prehistoric habitation sites (Neuman 1984:41).

Fowke's investigations led directly to the work at Marksville (16AV1) by Frank Setzler (1933a;b) and, indirectly, to the work at Greenhouse (16AV2) by James Ford (1951). On the other hand, Winslow Walker's 1931 venture seems to stand by itself. Walker, who stayed with the Louisiana naturalist Caroline Dormon, spent four weeks in the state during 1931. Besides his visit to the by then well-known mounds at Marksville, Troyville and Greenhouse, he also saw a temple mound group on Bayou Bouef, near LeCompte. A mile south of Natchitoches he visited the Fish Hatchery Site (16NA9), where several burials were found under two feet of alluvial mud (Walker 1932a;b).

Until modern times, little more was done in this area, with the notable exception of the various investigations of the late Clarence Webb, whose efforts revealed the complexity and extent of Caddoan culture in Louisiana. Webb, headquartered in Shreveport, was a pediatrician and avocational archeologist, although the quality of his archeological work equals and frequently surpasses that carried out by professionals. In 1938, in collaboration with Monroe Dodd, Jr., Webb excavated the Gahagan Mound (16RR1) in Red River Parish. He found a number of human burials and burial artifacts, which were attributed to the Coles Creek culture, although there were also stated to be similarities to sites in northwestern Florida (Webb and Dodd 1939; Webb 1944). During the same period, these workers excavated two mounds at the Belcher Site (16CD13). They found house patterns, human interments and artifacts. Their findings led them to conclude that the site reflected a southern Caddo affiliation (Webb 1940; 1941; 1944; Webb and Dodd 1939). Their work eventually led to a detailed monograph on the ceramics of this site (Webb and Dodd 1941). A more comprehensive monograph on this site was published by Webb in 1959 (Webb 1959). In addition, during the six years between 1934 and 1940 Webb and Dodd worked at Smithport Landing (16DS4), in DeSoto Parish, recovering materials they related to the Alto Focus of the Gibson Aspect (Webb 1963). Continuing his explorations of Caddo archeology, Webb carried out salvage excavations at the Lawton Site (16NA13), just below Natchitoches, recovering burials, indigenous pottery, and European trade materials. From these Webb was able to conclude that Lawton was a historic Caddoan site related to Walker's Fish Hatchery Site (16NA9), and both were assigned by Webb to the Glendora Focus (Webb 1945).

Next, Webb collated data from various surveys in northwestern Louisiana and defined the Bossier Focus (Webb 1948a). The materials assigned to this period date from about A.D. 1600 and tend to cluster on small hillside sites. Mounds are lacking and

ceremonialism seems to have undergone a devolution. By the early 1950s, the indefatigable Webb, this time working with Robert Fulton, excavated the Bellvue Mound (16BO4) in Bossier Parish. This investigation gave rise to the concept of the Bellvue Focus, a time period during which there are clear connections with Marksville and Troyville (Fulton and Webb 1953). And in 1978, Webb, in collaboration with Hiram Gregory, published a popular account of Caddo prehistory in a booklet produced by the Louisiana Archaeological Survey and Antiquities Commission (Webb and Gregory 1978).

Webb did not, however, stop with investigating the ceramic cultures of his area. He also described lithic artifacts relating to late Paleo-Indian and Meso-Indian cultures (Webb 1946; 1948b; 1965). His 1971 monograph on the John Pearce Site (16CD56) described a late Paleo-Indian occupation in northwestern Louisiana (Webb et al. 1971). And, following his and Ford's description of Poverty Point in a journal article (Ford and Webb 1956), Webb went on to publish what must be regarded, to date, as the definitive work on the Poverty Point culture (Webb 1977), the earliest Neo-Indian manifestation in America north of the Rio Grande.

Beginning with the early 1970s, however, a new corpus of work began to accumulate. It differed from the previous, academically oriented studies in that it was generated in response to newly enacted federal laws, such as the National Historic Preservation Act. As a consequence of this act and subsequent executive orders, a wide variety of archeological studies came into being as the result of development projects along and near the Red River. These cultural resources studies range from overviews (Heartfield et al. 1978; Neitzel and Perry 1977; Gregory and Curry 1978), to substantial excavations of particular archeological sites (e.g., Thomas et al. 1980). Most, however, are of the reconnaissance variety and involve fieldwork in certain carefully defined locales (e.g., Heartfield et al. 1980; Rivet 1979).

One of the first investigations in this category was the study the Central Louisiana Electric Cooperative (CLECO) commissioned from Gulf South Research Institute (GSRI) on the cultural resources of Lake Rodemacher in Rapides Parish. Though not on the Red River proper, the work is of some interest here both because of its thoroughness and its findings. The principal investigator, John House, excavated four sites in the Lake Rodemacher Basin and surface collected 17 more (House 1972). He found an extensive Late Archaic occupation; evidence of a microblade industry; and some traits that suggested Poverty Point relationships. Some Tchefuncte sherds, clay tempered plainware, and some sandy paste ware argued for an occupation of this area between Late Archaic and Early Caddoan time. House suggested that the Lake Rodemacher Basin was the effective boundary between the Caddoan and the Lower Mississippi Valley prehistoric cultures. In another study, Thomas and his associates of New World Research, Inc., conducted test excavations at the Cognac Site (16NA171) in Natchitoches Parish (Thomas et al. 1978) and at the Hanna Site (16RR4) in Red River Parish (Thomas et al. 1980). These sites were both Alto Focus hamlets and furnished quantities of household assemblages, in contrast to the burial materials recovered from many other sites. A year

later, following Rivet's discovery of the Whatley Site (16LA37) (Rivet 1977a;b), Thomas and Campbell (1978) excavated and showed a long sequence of occupation, beginning with San Patrice times and continuing through the Plaquemine period. While this site is on the Little River, rather than the Red, information gleaned from its study is of value in inferring the culture history of the Red River area, especially in the area between Colfax and the Red's confluence with the Mississippi.

Other projects of a strictly survey nature were carried out in uplands areas overlooking or near the Red River flood plain. Gregory and Curry, for example, in an intensive survey of three tracts in the Kisatchie National Forest, found three superficial Archaic sites (Gregory and Curry 1976). Several years later, Heartfield, Price and Greene surveyed 4,100 ac in the Catahoula and Evangeline Ranger Districts of Kisatchie and identified 45 cultural resources. However, only three of these sites (16GR66; 16GR68; and 16GR69) are in Grant Parish, near the current project area, and none of these sites were adjudged significant (Heartfield et al. 1981). Besides than this body of work, the other single most important corpus of cultural resources investigations related to the archeology of the Red River is a group of studies commissioned by the Vicksburg and New Orleans offices of the U.S. Army Corps of Engineers in connection with the development of the Red River Waterway.

Shortly after Neuman (1970) completed his overview of the archeology of the Red River valley, fieldwork began in connection with the Red River project. A reconnaissance-level survey that covered the entire main channel of the Red, from its confluence with the Mississippi to the Arkansas state line on the northwest was conducted by Gulf South Research Institute. The GSRI archeologists located 74 sites and made recommendations on a site-by-site basis (GSRI 1975). This work was carried out as part of the project design memoranda, in order to produce a project environmental impact statement. Following this, a number of additional studies were done on particular subprojects within the general area. Dickson, working for New World Research, considered the cultural resources inventory of seven proposed revetments between Boyce and Shreveport (Dickson 1978) and ten other construction areas (Dickson 1979). This work involved intensive survey of a number of tracts along the river proper. The survey revealed several recent historic locations and one prehistoric site. A subsequent contractor has criticized their field methodology on the grounds that their auger intervals were too large, and that augering, in any case, is often ineffective in discovering sites (Mueller and Newkirk 1981:112).

Another project during this time period was that of Coastal Environments, which surveyed the location of a proposed lock and dam in Rapides Parish (Gagliano et al. 1978). One might also mention several surveys by Dr. Jon Gibson of the University of Southwestern Louisiana. In a 1977 study, Gibson examined the location of the proposed Sugar House revetment in Grant Parish. In this report, he agrees with Neuman (1970) that Colfax may be taken as the approximate dividing line between the Lower Mississippi Valley cultures, on the southeast, and the Caddoan area on the northwest (Gibson 1977a).

Gibson's fieldwork turned up only two certain aboriginal artifacts and, as both had been water transported, neither could be considered significant. In a second effort, Gibson turned his attention to the Pointfield Revetment. In this project, the author unsuccessfully searched for the Coushatta village mentioned by the Freeman-Custis Expedition of 1806 (Gibson 1977b). The next year, Gibson looked at the proposed site of the Grappe Realignment in Grant and Natchitoches Parishes. The alluviation was so profound, however, that he carried out no subsurface testing (Gibson 1978a). Finally, also in 1978, Gibson examined a 6,000 ft corridor in Rapides Parish, as part of the Roberts Revetment project. He did not, however, find any cultural resources (Gibson 1978b). A similarly negative survey was that of Rader, who examined the proposed location of the Falcon revetment, in Grant Parish (Rader 1978).

Probably the most impressive study of this period, however, was the two volume report published by Commonwealth Associates, Inc. In this work, which dealt with the whole of the Red River waterway from Shreveport to the Mississippi, the authors considered environment, geomorphology, and previous studies. They evaluated all previous work done in the area and provided a useful historical background. They also synthesized all that was known at that time about the prehistoric cultures of the area (Mueller and Newkirk 1981).

Within the past ten years, there has been further work along the Red River sponsored by the Corps of Engineers. Whelan and Pearson, in 1983, considered five construction areas in Grant and Rapides Parishes (Whelan and Pearson 1983), and the following year Price surveyed the proposed location of a lock and dam in Grant and Natchitoches Parishes (Price 1984). In the same year, Bryant et al. examined seven construction locations along the Red River in a stretch just above Natchitoches. Their work turned up several recent historical sites and also involved an aquatic magnetometer survey (Bryant et al. 1986). In 1982-83, Kleinhans conducted a survey of the Aloha-Rigolette Flood Control Project area (Kleinhans 1986). Kleinhans undertook both an archival examination and a random sample survey of five to ten percent of the proposed channel right-of-way, and two floodgate sites (Kleinhans 1986). The reconnaissance survey was augmented by shovel tests along transects 10 to 50 ft in width.

The archival examination turned up eleven recorded sites in the flood problem area. Three are on the alluvial plain, the others in the uplands. Two, the McNeely House in Colfax and Keteland, a dogtrot house, are already on the National Register of Historic Places. One site, 16GR4, is said to be located on a short relict channel west of the confluence of Sandy Bayou and Bayou Darrow. As will be seen later, this is a mislocation and the site is actually in the uplands, some miles to the north, which is where Fisk (1938) located it.

The field portion of the survey did not locate any new sites, nor did a consideration of two construction alternatives "demonstrate impact on previously recorded cultural resources." Kleinhans concluded:

Based upon map and historical data, it is concluded that the negative survey results and the small number of previously recorded sites in the Bayou Rigolette Basin are misleading. Although there is (sic) no available data to predict the presence or absence of prehistoric sites on the alluvial plain, historic, eighteenth century Indian sites, nineteenth century plantation structures and associated features can be expected to be found on or near the surface in the upper basin, northeast of Caney Bayou (Kleinhans 1986:i).

Another study worth noting is that of Klinger and Imhoff, of Historic Preservation Associates, Inc. They surveyed the Boyce and Fort Buhlow recreation areas, which consisted of some 470 ac. They also mapped the two forts, conducted a terrestrial magnetometer survey, and carried out test excavations at six locations (Klinger and Imhoff 1988). One of these locations was reported as an historic Appalachian Village (16RA335). While they were unable to verify much historic Appalachian occupation the site was recommended eligible for nomination to the National Register of Historic Places.

One must also mention the 1991 draft report by Goodwin et al. on seven locations in Pool 3 of the Red River waterway. This undertaking required the survey of 344 ac in Natchitoches and Grant Parishes. Methodology included both standard shovel and auger testing, and a terrestrial magnetometer survey. No archeological sites were encountered during this project (Goodwin et al. 1991).

Finally, work of avocational archeologists such as Adele Ethridge, Wiley Parsons, and David Jeane must be noted. While much of their work remains unpublished, their contributions to the field remain undisputed.

Summary

Previous investigations in the project area have included classic studies such as that of Moore (1912); excavations and surveys by such well-known archeologists as Webb, Ford and Gregory, and a number of studies conducted in compliance with state or federal regulations. The import of these investigations has shown that prehistoric and protohistoric sites exist within the Red River alluvial valley and its surrounding regions. These studies help to elucidate prehistoric settlement patterns and establish the Colfax area as the approximate division between Caddoan and Lower Mississippi valley cultures. However, data regarding historic manifestations remain sketchy for the area, despite the efforts of both professional and avocational archeologists.

CHAPTER VII

FIELDWORK

Introduction

Initial fieldwork involved three elements: (1) intensive survey of a 28 ac area along Bayou Rigolette and Sam's Bayou, on property owned by Mr. Bernard Harrison; (2) Riparian reconnaissance of 8.2 mi along Sam's Bayou and Bayou Darrow, from the dam on Sam's Bayou to the Red River levee; and (3) search for site 16GR4 (Indian Hill Site), reported by Beecher in 1937. In June, 1992, a modification of the original delivery order was requested to add an additional 23 ac between the mouth of Bayou Darrow and the Grant/Rapides Parish line.

Initial fieldwork took place on November 12-15, 1991, and involved Dr. Malcolm K. Shuman; Mr. Dennis Jones; and Mr. Lloyd Pine. Techniques employed were: (1) pedestrian survey along transects spaced 20 m apart with the excavation of shovel tests every 50 m. Shovel tests on adjacent transects were offset. All material was screened, except where it was too consolidated, in which case it was broken up and examined. Augering with an Oakfield soil sampler was also utilized at discretion. (2) Boat reconnaissance using a canoe with a 3 HP motor was also employed for examination of banklines, and for transportation to and from the survey area, as well as to site 16GR4. (3) Mapping, photography, controlled shovel tests, and surface collection were also undertaken.

The fieldwork was conducted in mid-November. During this time of the year, ground visibility is improved due to reduced vegetation and water levels in the bayous were lower, exposing more of the bankline.

Research Strategy

The state's Comprehensive Archaeological Plan (CAP) has identified 23 themes as relevant to the project area (Smith et al. 1983). Current investigations have the ability to inform the following themes:

1. *Paleo-Indian culture.* This cultural manifestation may exist in the uplands portion of the survey area, along the north bank of Bayou Rigolette, primarily on ridge formations. Paleo-Indians no doubt also occupied parts of the alluvial valley of the Red River, but their sites are probably buried by considerable amounts of recent alluvium.

2. *Post Pleistocene transition.* This manifestation, which includes those cultures that bridge the Pleistocene and Holocene epochs, may be expected to occupy the same general area as the earlier Paleo-Indians. There is reason to expect their sites to be particularly salient in ecotonal areas, which would particularly apply to the high ground overlooking Bayou Rigolette.

3. *Archaic culture.* Archaic or Meso-Indian culture is not well known in Louisiana. The Meso-Indian period is one in which hunting and gathering developed to a point of full exploitation of the natural environment. Meso-Indian sites would be particularly prevalent in ecotonal areas due to the ability to utilize such locations for maximum exploitation of two or more environments. With reference to the present study, we might expect sites of this nature to occur near Bayou Rigolette or near Bayou Darrow, which may have been a major channel of the Red at one time. Also, sites might be in such locations as Meade swamp, which is well outside the survey area, lying on the north side of Bayou Rigolette south of Bagdad. Once more, however, the periodic overflows the Red River and its meanders along several courses, may have obliterated many sites.

4. *Prehistoric adaptation to the alluvial valley.* This theme is relevant primarily for the Neo-Indian period, both because of the recent nature of the land surface, and because the Red River valley would be conducive to the development of agriculture. Neo-Indian village sites of the period AD 100-1700 may be expected to occur in the alluvial valley, although annual overflows of the river may have buried all but the most recent.

5. *Prehistoric utilization of the uplands.* Very little of the present survey area consists of uplands, but some of the area along the north bank of Bayou Rigolette is upland terrace. We may suggest that this area was utilized prehistorically primarily for hunting and for the exploitation of such natural resources as salt and stone.

6. *Mound building.* The construction of earthen mounds is a well-attested phenomenon in the Southeast. Mounds abound in the Mississippi Alluvial Valley and are also present along the Red. Several mounds have been reported near the survey area (i.e., 16GR10 and 16GR14). The location of these mounds in upland areas is anomalous and investigation of these formations may yield insights into prehistoric lifeways.

7. *Caddoan Cultural Tradition.* It has been mentioned that this area is one in which Caddoan and Lower Mississippi Valley cultures meet. Sites with identifiable ceramics might add to our knowledge concerning the nature of occupation or better define cultural boundaries.

8. *Prehistoric Mining and Extraction.* The area of pine uplands in north central Louisiana is noted for its deposits of stone and its salt licks. While only a small portion of the survey area is upland in nature, it is theoretically conceivable that sites in this locale will cast light on the nature of prehistoric mining and extraction.

9. *European-Indian Contact.* The rise of European settlements in this area was at the expense of the Indians. Thus, particular attention must be paid to the possibility of protohistoric and early historic sites that might assist in investigating this chapter of history.

10. *Historic Exploration and Colonization of Louisiana.* European exploration began with the visit of Bienville to the Natchitoches in 1699. The survey area was a part of land grants awarded by the colonial governments. Consequently, it is possible that dwellings dating from colonial times could have been located in the survey area, although these dwellings would long ago have perished. Nevertheless, their artifacts may still exist, although constant alluviation would pose a problem for their recovery.

11. *Military history of Louisiana.* During the Civil War, Gen. Nathaniel Banks attempted to capture Shreveport for the federals by making a thrust up the Red River. As is known, he was defeated at the Battle of Mansfield. Cultural remains dating from the Civil War period and relative to the Red River campaign are possibly near the confluence of Bayou Darrow with the Red River.

12. *Settlement of the Red River Valley.* This theme would be enlightened by the discovery of European structures in the project area. It relates to Theme No. 10.

13. *Plantation Archeology.* Plantations were frequent along the Red River and at least one Plantation (Bynum) is known for the study area. Examination of this locale might provide evidence of plantation artifacts, graves, or other cultural materials.

The fieldwork was carried out with a consciousness of these as well as other themes which could be considered relevant to the project area.

Results of Fieldwork

Results of fieldwork will be reported in terms of the four tasks set for the fieldwork stage. These were (1) intensive pedestrian survey of 28 ac near the confluence

of Bayou Rigolette and Sam's Bayou; (2) riparian reconnaissance; (3) attempted relocation of Site 16GR4; and (4) intensive pedestrian survey of 23 ac just east of the mouth of Bayou Darrow.

Intensive Pedestrian Survey of 28 ac near the confluence of Bayou Rigolette and Sam's Bayou

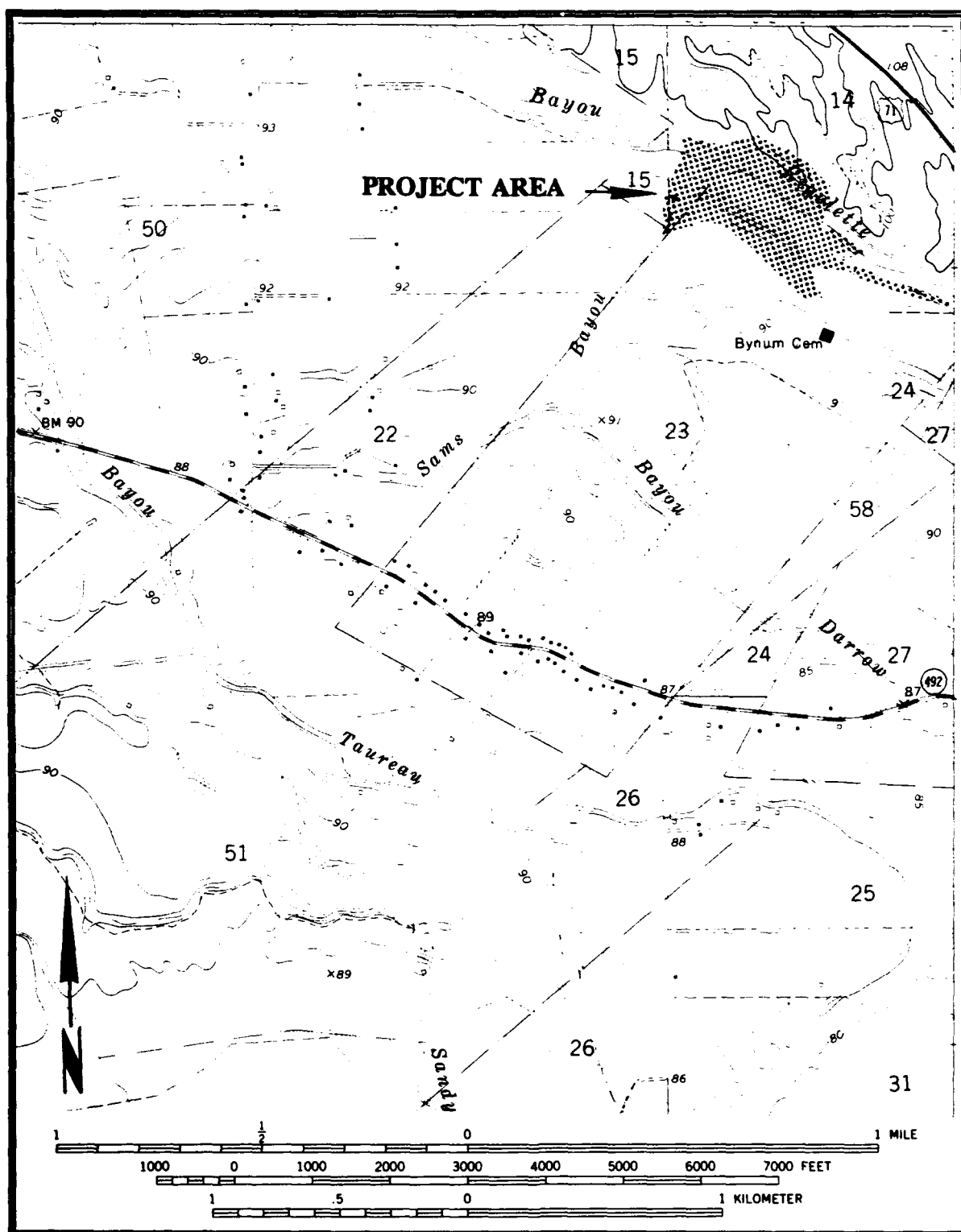
Intensive pedestrian survey was carried out by Malcolm Shuman, Dennis Jones and Lloyd Pine. A large part of the survey area (south of Bayou Rigolette) was open cottonfields, while the northwest bank of Sam's Bayou was bottomland hardwood forest. The north bank of Bayou Rigolette was also bottomland hardwood forest, except for finger ridges that represents Pleistocene Prairie terrace (Figure 3).

The entire south side of Bayou Rigolette shows alluviation to a depth of at least 60 cm, which was as deep as the soil probe would go. Below that level is hard clay. Elevations average about 90 ft AMSL. The north side of Bayou Rigolette represents a similar soil regime except in the finger ridge area, which shows sandy soils overlying clays, the latter at a depth of about 30 cm. Elevations average about 100 ft AMSL, but extend as high as 110 ft AMSL.

The intensive pedestrian survey involved 130 shovel tests and 4 auger tests. No evidence of cultural resources was encountered within the impact area proper. However, the survey identified two cultural properties outside the survey area, one being a twentieth century cemetery, and the second being a previously unreported prehistoric archeological site. Additional investigations were undertaken at each of these locations.

Bynum Cemetery (16GR469). The location of this cemetery is shown clearly on the Boyce 1971 7.5' quadrangle (see Figure 3). It is located in irregular Section 24, T6N, R3W. According to the landowner, Mr. Bernard Harrison, who has lived on this property for 30 years, the Bynum house was located about a mile away. The cemetery gravestones, he reported, had been bulldozed at some indefinite time in the past. At present, only four gravestones remain. These are located in a small brushy copse that extends into the cotton fields. The inscriptions read as follows:

- No. 1: Laura Smith. Died March 15, 1933. Age 69. Our Mother Gone But Not Forgatten (sic) (Figure 4).
- No. 2: Lucy Brandon. Died Nov. 17, 1928 (dates reconstructed due to stone's having been broken) (Figure 5).
- No. 3: Ophelia Smith. Born March 14, 1914. Died Oct. 24, 1916. Our Darling One Hath Gone Before to Greet Us on the Blissful Shore (Figure 6).
- No. 4: Stone broken off, with no inscription or name visible (Figure 7).



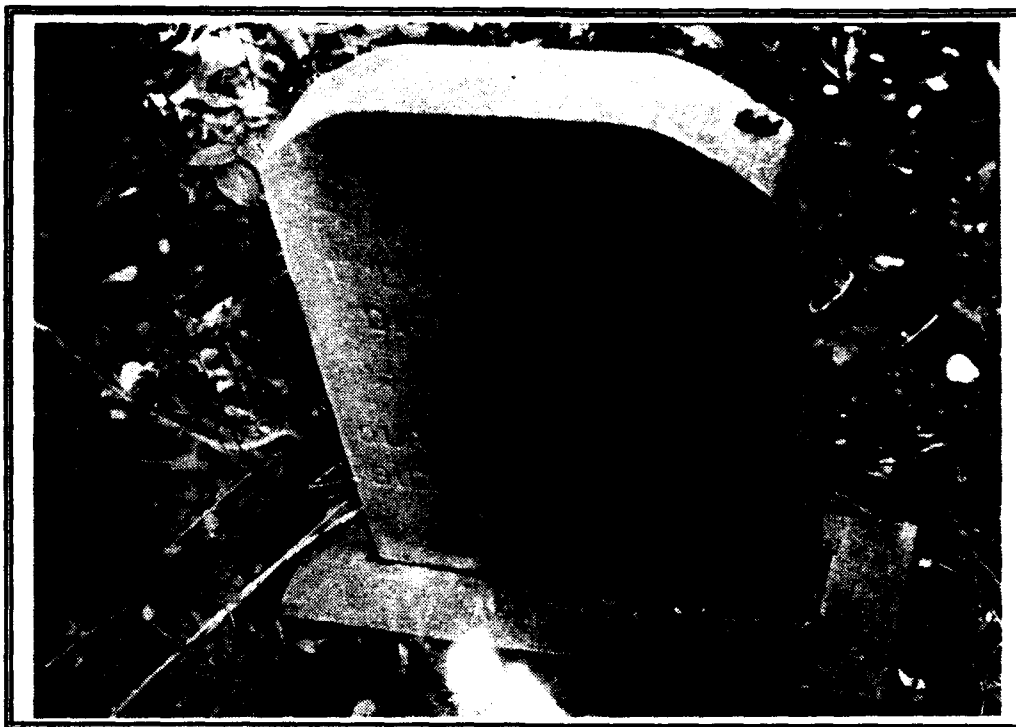


Figure 4: Laura Smith Tombstone



Figure 5: Lucy Brandon Tombstone



Figure 6: Ophelia Smith Tombstone

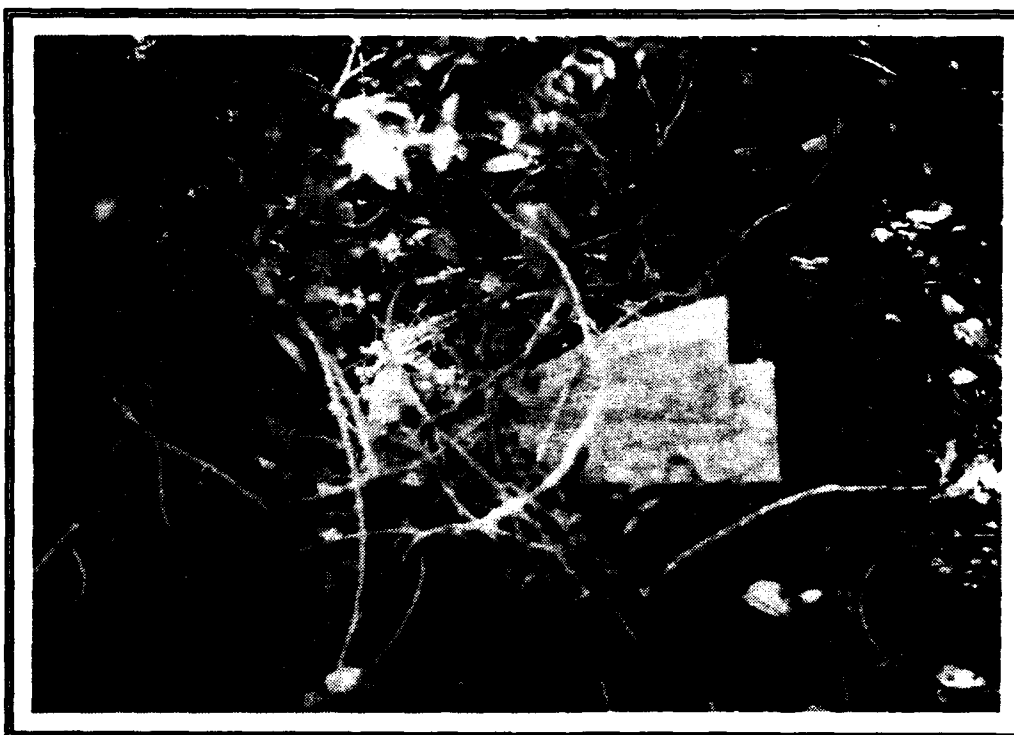


Figure 7: Fragment of Tombstone with No Inscription Visible

This cemetery, as has been indicated in Chapter V, was moved from its precious location at Bynum Plantation during this century.

The area occupied by these four gravestones is about 15 x 6 m (5 x 20 ft), or 9 m². Taking in the length of possible graves, the area would be more like 18 m². However, it is entirely possible that these gravestones have been bulldozed out of their original places and left in this copse of trees, in accord with Mr. Harrison's statement that the stones had "all been dozed into the slough." No graves were visible in the nearby cotton fields. As mentioned in the Chapter V, Bynum Cemetery was apparently originally located about 1.2 km to the southeast of the present location. The gravestones located during this survey may thus represent turn-of-the-century tenants or even members of the overseer class, at Bynum Plantation.

The Bynum Cemetery is outside of the proposed construction site and will not be impacted by the project. However, care should be taken to avoid the cemetery during staging operations prior to construction. The cemetery was reported as an archeological site and was given the number 16GR469.

Rigolette Site (16GR423). This site is a prehistoric chipping station located on a finger ridge that overlooks Bayou Rigolette and the survey area. The site consists of chert and novaculite flakes and debitage in an area of roughly 20 m x 35 m, or 700 sq m (2,275 sq ft). This finger ridge is a Pleistocene Prairie terrace formation overgrown with pine trees. The center of the site is 77 m (250 ft) north of the water's edge of Bayou Rigolette at an altitude of 110 ft AMSL.

This site was discovered during routine shovel testing conducted outside the project area. Additional shovel testing was conducted after initially identifying the site. Shovel tests were excavated at 5 m intervals along each of the cardinal directions originating from the center of the site. Soil from each shovel test was screened for artifacts. Shovel tests were assigned grid coordinates and plotted on a site map (Figure 8). Shovel tests were backfilled after recordation. A total of 20 shovel tests were excavated at the site and of these ten were positive in recovering 15 putative lithic flakes. In the laboratory only thirteen of these "flakes" were judged to be produced by human agency. Material recovered consisted primarily of secondary flakes of chert, with some flakes of novaculite (Table 3).

This site is typical of many sites in the Catahoula and Winn District of the Kisatchie National Forest, located north of the project area. The sites typically occur on finger ridges overlooking watercourses and appear to represent toolmaking activity by prehistoric Indians (USFS site files).

The lack of identifiable midden deposits, and a dearth of ceramic artifacts makes it impossible to assign temporal or cultural affiliation to the site. The site is located outside the project area and it will not be impacted by the proposed construction.

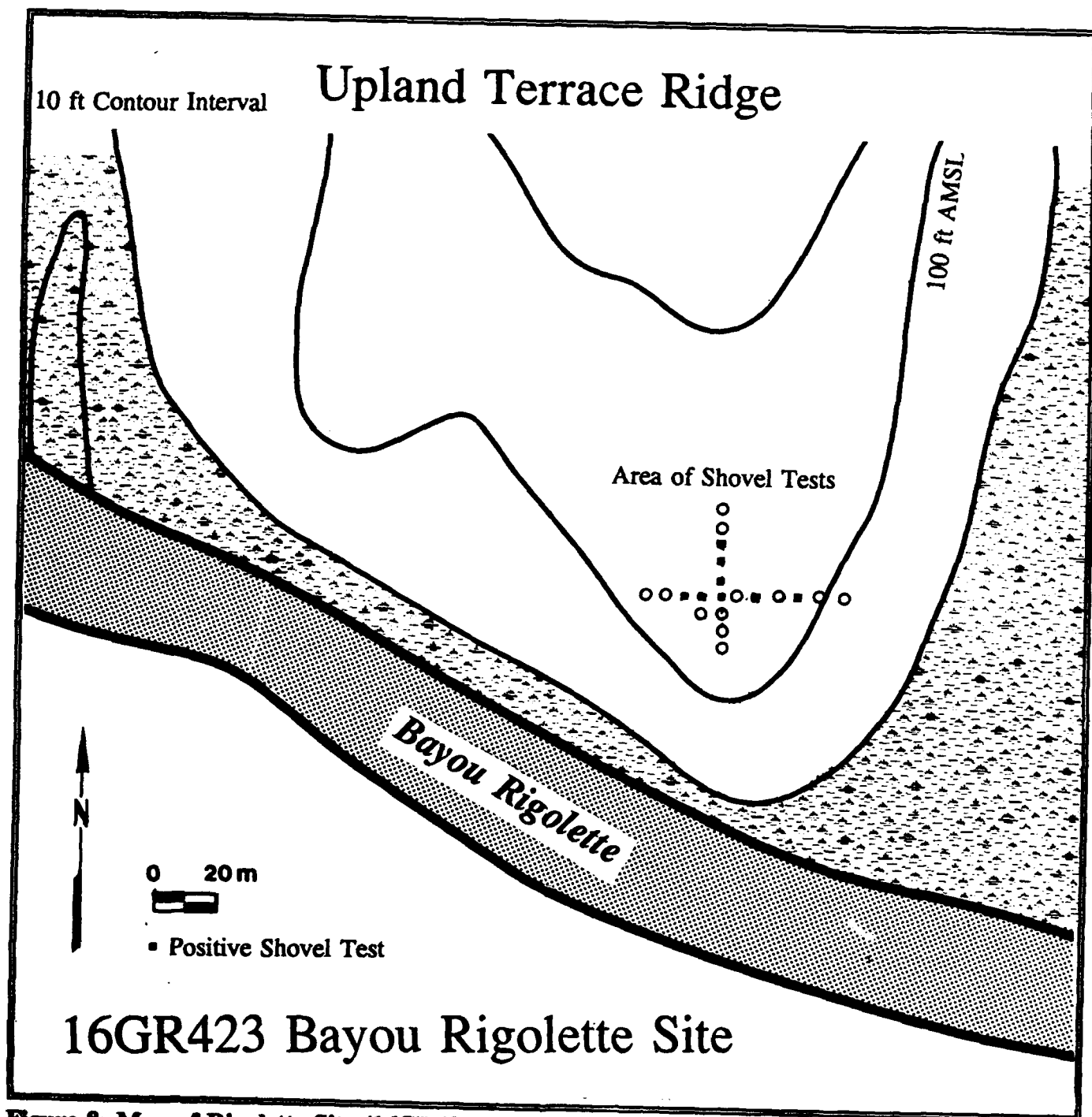


Figure 8: Map of Rigolette Site (16GR423) Showing Shovel Tests

TABLE 3
LITHIC ARTIFACTS FROM 16GR423

MATERIAL RECOVERED	GRID CTR	N/S0 E20	N/S0 E10	N15 E/W0	N/S0 W5	N/S0 W10	N05 E/W0	N10 E/W0
Undif. Lith. Frag.								
Flake	3	1	1	1	1	1	2	1
Mod. Flake				1				
Mod. Pebble							1	
Scraper								
Biface Preform								
Biface								
Fire Cracked Rock								
Ground Stone Tool								
Reworked Stone Tool								
Unmod. Stone Tool								
TOTAL	3	1	1	2	1	1	3	1

Riparian Reconnaissance

A reconnaissance by canoe was made along approximately 8.2 mi of Sam's Bayou and Bayou Darrow (Figure 9). Personnel involved were Malcolm K. Shuman, Dennis C. Jones, and Lloyd Pine.

The reconnaissance included that area from the earthen dam that blocks Sam's Bayou about 1,000 ft south of its confluence with Bayou Rigolette, to the Red River levee, where Bayou Darrow has been effectively blocked from entering the Red River. Two spots along the lower end of Bayou Darrow were impassable. The first was the ansas City Southern trestle crossing of Bayou Darrow. Due to driftwood accumulation, the canoe was put into the water at LA 492 and the team traveled south to the trestle and returned. The following day the canoe was launched from the Red River levee and a trip was made to the trestle and back. In the course of that trip, a second impassable spot was found, about midway between the trestle and the Red River levee. This log jam required a portage of about 150 ft. Finally, a trip was made from La. 492 north to the earthen dam on Sam's Bayou and back. The reconnaissance involved passage both up and down the bayou, with an opportunity to scan both banks. Speed was much reduced due to the frequency of subsurface snags and other impediments (e.g., a beaver dam on Sam's Bayou). During the course of the reconnaissance nine areas were selected for shovel and auger testing.

From the Sam's Bayou/Bayou Rigolette confluence to about .2 mi south on Sam's Bayou, the left descending bank (LDB) was steep, with a height of approximately 12 ft, while the right descending bank (RDB) was lower, about seven ft high, with backswamp vegetation, such as palmettos, growing along the water's edge. Testing conducted at the confluence of these two bayous indicated an upper 60 cm (29 in) layer of recent alluviation which overlayed a strata of clay. A coulee enters Sam's Bayou on the RDB, about 1,200 ft south of the Sam's Bayou/Rigolette confluence. Soils consisted of fine silt. The steepness of the LDB continued for another .5 km downstream.

More than 60 cm (2 ft) of recent alluvium (5YR4/6) had been deposited at the confluence of Sam's Bayou and Bayou Darrow. A total of six shovel and two auger tests excavated at the location exhibited no evidence of cultural resources or *in situ* deposits at this location. Half a mile below this point, the LDB was 6 ft high with moderately steep slopes. The RDB was four ft high and had a more gradual slope. From a point about one mile south of the La. 492 bridge, there were no perceptible banks at all, their height seldom exceeding two ft. The environment was backswamp, with willows and oaks, and much of the land was cleared for pasture. A river terrace occupied the area about 15 m away from the water's edge on each side of the bayou.

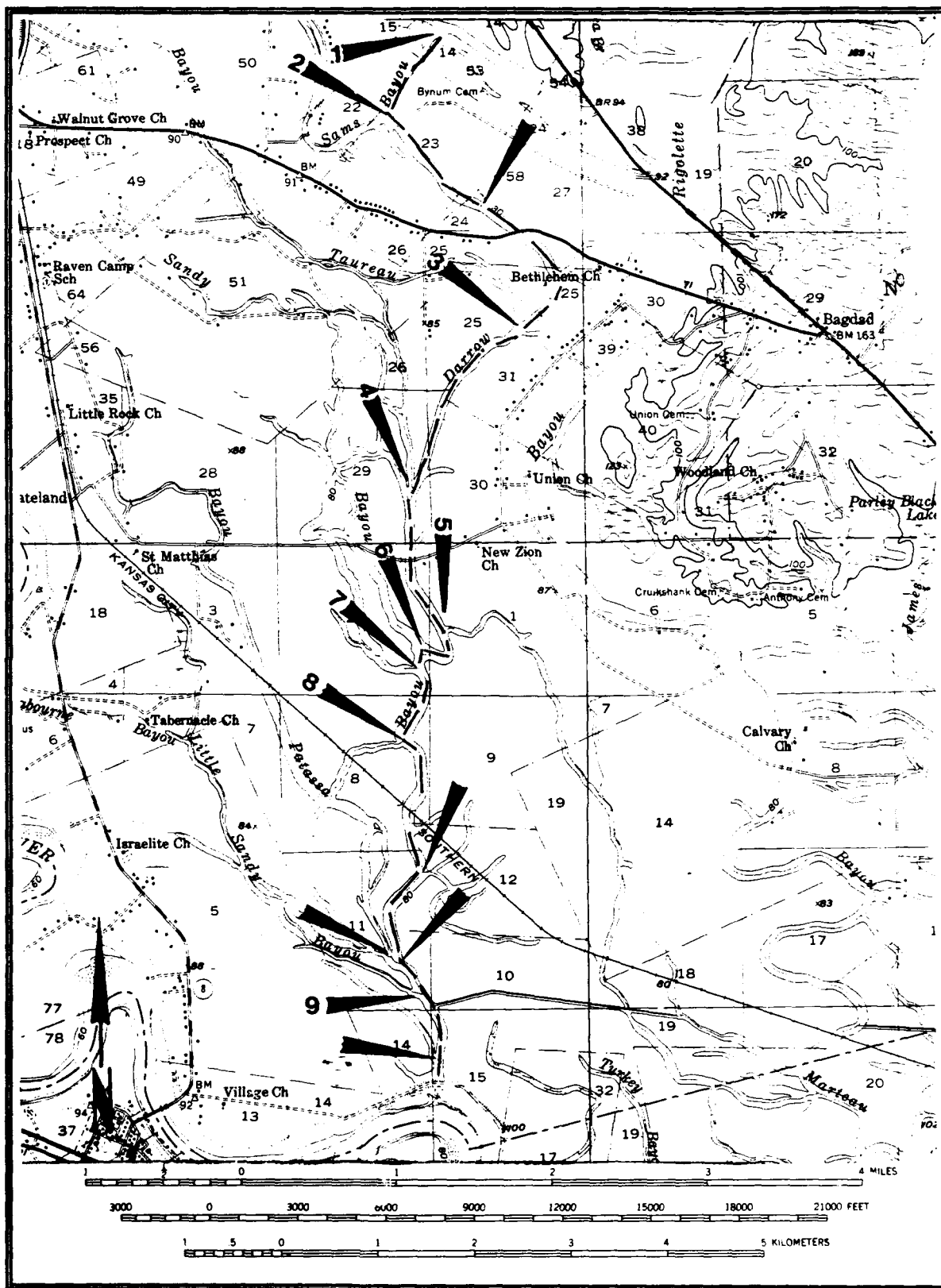


Figure 9: Areas Surveyed on Bayou Darrow and Sam's Bayou Showing Locations Tested

Below the Kateland Road bridge, bank height rises again, to about six ft on the LDB and five ft on the RDB. From the Kansas City Southern Railroad trestle to about .2 miles downstream, the banks on both sides were about five ft high. Terraces flank the bankline about 23 m (75 ft) from the water's edge, with gradual slopes. A series of ridges and swales became evident along the bayou midway between Kateland Road and the Kansas City Southern railroad trestle. The LDB and RDB varied from two to six ft in height in this area and this pattern of relief continued downstream to the Red River levee. Two shovel and four auger tests excavated at the confluence of Sandy Bayou and Bayou Darrow exhibited 5YR4/6 Red River alluvium to a depth of 50 cm. The irregular surfaces/soil of this reach of the bayou appeared to indicate a number of factors at work, including shoaling at the confluence of the two streams and, to some extent, the effects of beaver activity. The most important factor, however, is probably previous clearing of the channel and its banks, and dredging of the channel.

Areas selected for additional shovel and auger testing are shown on Figure 9. These were: (1) the coulee that enters Sam's Bayou about 1200 ft south of the Sam's Bayou Rigolette confluence; (2) the confluence of Sam's Bayou with Bayou Darrow; (3) the confluence of Bayou Tareau and Bayou Darrow; (4) the confluence of Bayou Tareau distributary and Sandy Bayou distributary with Bayou Darrow; (5) above the confluence of Bayou Darrow with Sandy Bayou; (6) the confluence of Bayou Darrow with Sandy Bayou; (7) the confluence of the Sandy Bayou distributary with Bayou Darrow on the RDB; (8) along a relict distributary on the RDB; and (9) the confluence of Little Sandy Bayou with Bayou Darrow. Alluvium recorded during shovel and auger testing is typical Red River deposits being 5YR4/6 silt. Two auger and two shovel tests were made at each location (see Figure 9).

As mentioned in the history section, several structures are shown on the east side of Bayou Darrow, near its confluence with the Red River (Section 15). These dwellings, however, appear outside the survey area. No artifacts or evidence was associated with these structures were encountered within the survey area. This is not strange, in view of the fact that most of this section near the bayou had been, and was in the process of being, graded by earth moving equipment. Thus, profound disturbance had already taken place and the only structure observed in this section was a modern shed for farm machinery.

Search for Site 16GR4 (Indian Hill)

This site, which lies just outside the technical impact area, was reported by Walter Beecher in June, 1937. A cryptic reference states that Ford visited it, but the date is given as "n.d." The state site record locates this site in the SW 1/4 of the NW 1/4 of Section 11, T6N, R3W. Confusion has arisen from the fact that the state site records reference the Boyce 15' Topographic quad, while the site form also states that the site is "120' from Magnolia Lake." This mention of Magnolia Lake, together with Fisk's map and the township coordinates, clearly place this site on the Colfax 15' quad, and out

of the Red River Floodplain. The site form also mentions that the site is associated with "Choctaw to recent cultures," although no collected material is described or mentioned.

Malcolm K. Shuman and Dennis C. Jones visited the location indicated by the site form, using a canoe launched at the confluence of Bayou Rigolette with Sam's Bayou. Such a trip represented a distance of 2.7 mi. The LDB of Bayou Rigolette at this point rises sharply to bluffs varying between 40 and 60 ft high. These bluffs, which form part of the Pleistocene Prairie terrace, are entirely overgrown by hardwoods and briars.

A beaver trail was followed east for about 75 m to a body of stagnant water that must certainly be Magnolia Lake. The words "Magnolia Lake" are printed on both the 7.5' and 15' maps at this location, though no shading indicates where this lake should be. Possibly this is because of variable water level in the lake itself. In any case, the lake discovered by Shuman and Jones is a stagnant, cypress covered body about 600 m north to south and 200 m east to west (Figure 10). It thus effectively isolates the bluff or ridge between itself and Bayou Rigolette.



Figure 10: Magnolia Lake

On our walking the west side of the lake, the land was observed to rise up to the northwest considerably above the level of the normal terrace on which we stood. The side of this hill revealed numerous outcroppings of sandstone. Several shovel tests on the east side of this hill produced concentrations of gravels, consisting of cherts and quartzite, among which was unmistakable debitage from tool manufacture. This debitage was, for the most part, flakes and chips. The lack of any visible stratigraphy, and the intermixture of natural gravels with stones that had been modified by human use was puzzling, initially, especially in view of the lack of other types of artifacts (e.g., ceramics and projectile points). The assignment of the site to the Choctaws would seem to imply the existence of recognizable ceramics, if this was, indeed, 16GR4. Briar cover was so intense that regular survey was all but impossible. We did, however, find a trail leading upward and we made our way to the top of the hill. Here, in an area of about three acres, was the remnants of a modern gravel quarry (Figure 11). Examination of this quarry allowed excellent views of the stratigraphic profile and showed the soil to be intermixed with gravels for a distance of 20 ft or so. No debitage was visible in any of these profiles. On the other hand, debitage was quite evident on the surface of this area, and numerous flakes, a biface preform and several modified pebbles were collected (Figure 12). A full tabulation of artifacts may be found in Table 4.

We conclude that this is the Indian Hill site (16GR4) reported by Beecher. Our reasoning is as follows:

First, this is clearly a prehistoric site, and it is at the precise location described by Beecher, although the distance from Magnolia Lake may be more like 250 ft than 120 ft. Nevertheless, at 120 ft from the lake there is undoubtedly lithic debitage, as there is all over the slopes of this hill.

Second, a discussion with Dr. Hiram F. Gregory suggested that this was the correct site location. While Gregory has not visited the site himself, he knows of collectors who have materials from it. One of these collections is said to consist of Archaic (Meso-Indian) projectile points (Hiram F. Gregory, personal communication). Thus, Gregory's knowledge of the site, while secondhand, suggests that the site has produced primarily lithic materials.

Third, though the site is mentioned by Beecher to be a Choctaw site, nowhere does he explicitly state that it yielded the ceramic or other materials that might suggest such a classification. Fisk, in his *Geology of Grant and LaSalle Parishes*, in fact, correctly locates this site, although he erroneously labels it (and every other site on his map!) an "Indian mound" (Fisk 1938: Figure 13). He gives the cultural assignments of many of the other sites, basing this on Ford's 1936 work, but he provides no cultural assignment for his G-4 (16GR4). Ford (1936), who is reported on the site form for 16GR4 to have visited the location, does not refer to it in his seminal analysis of Indian



Figure 11: Gravel Quarry at Site 16GR4

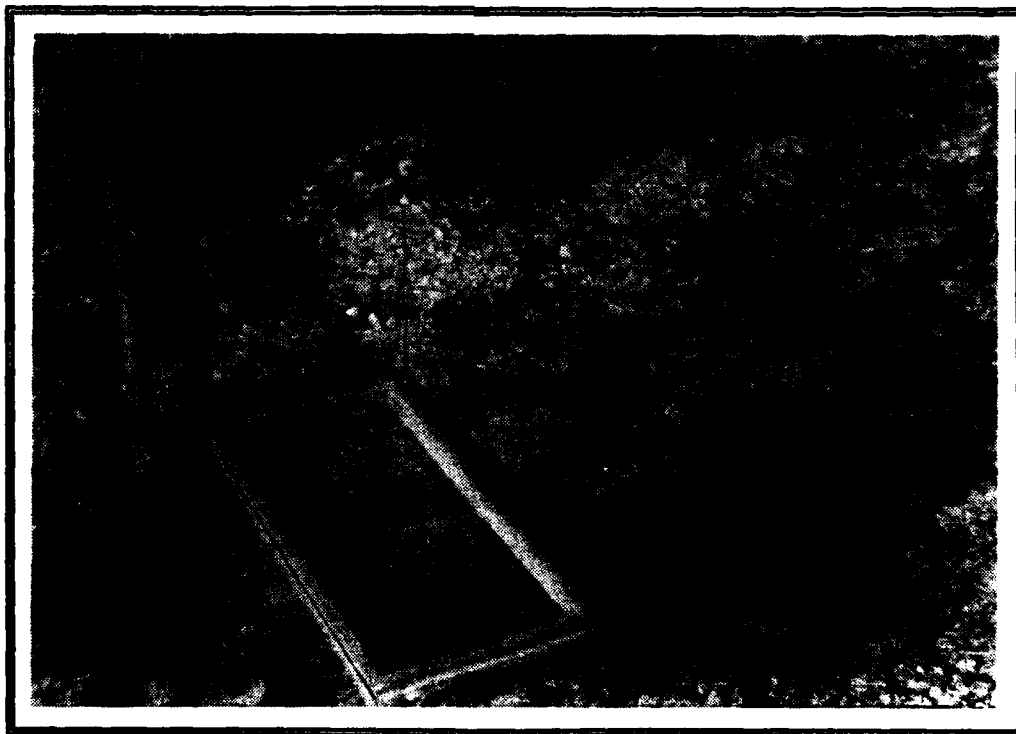


Figure 12: Lithic Debitage on Surface at Site 16GR4

TABLE 4

LITHIC ARTIFACTS FROM 16GR4

	Surface of Trail	Road Surface	From Surface Of Hill Top	Shovel Test On East Slope	Shovel Test In Road	General Surface Collec- tion
Undif. Lith. Frag.						
Flake			3	1	2	2
Mod. Flake						
Mod. Pebble		1		2		
Scraper						
Biface Preform	1					
Biface						
Fire Cracked Rock						
Ground Stone Tool						
Reworked Stone Tool						
Unmod. Stone Tool	1					
TOTAL	2	1	3	3	2	2

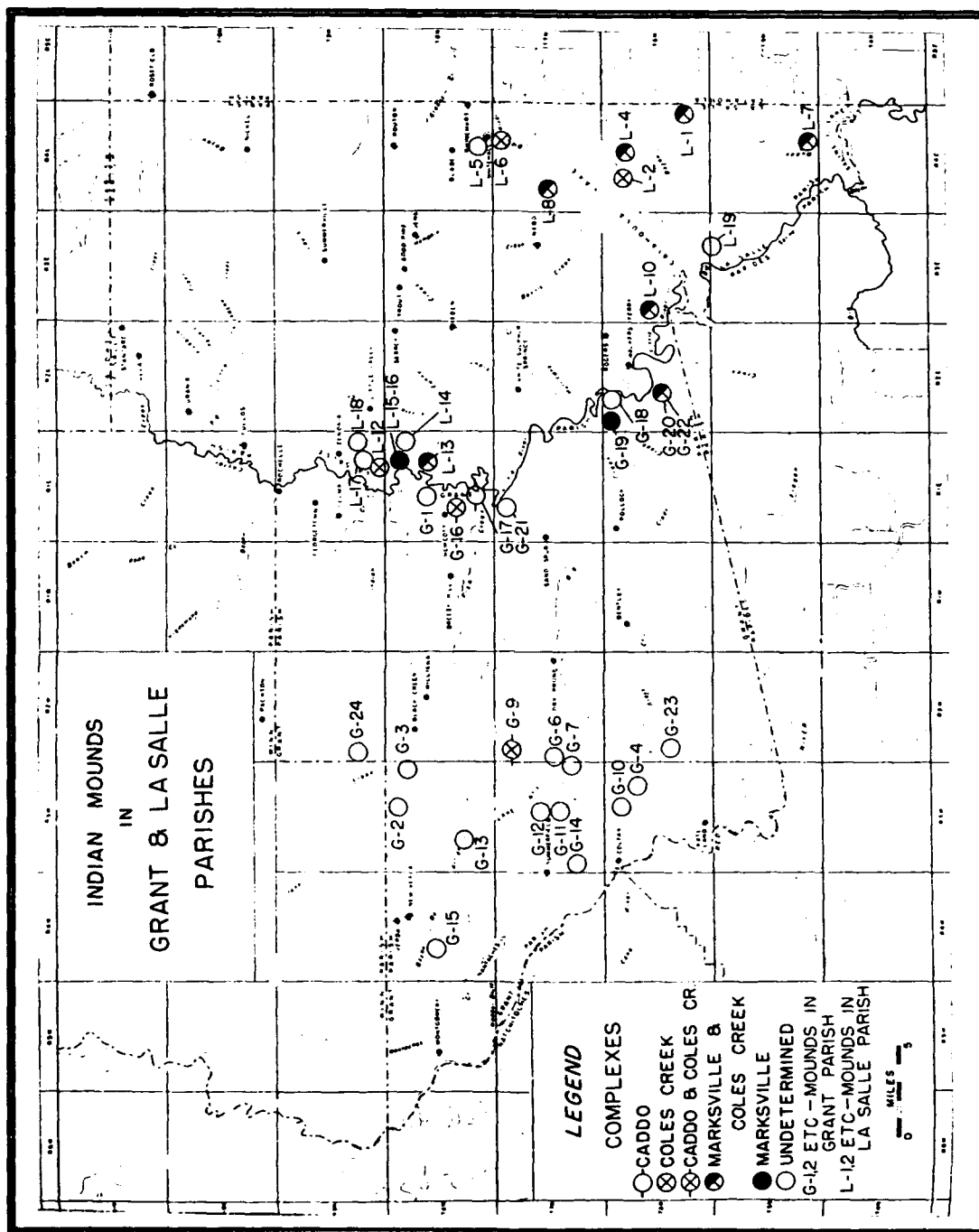


Figure 13: Map by Fisk Showing Area Sites (from Fisk, 1938)

village sites, all of which yielded ceramic data. Of Course, Ford may have visited the site between 1936 and 1938, but, if so, he does not seem to refer to it elsewhere. Fisk writes,

The mounds (sic) in southern La Salle and southeastern Grant Parishes were located and collected by Mr. James Ford and Dr. F.B. Kniffen. Collections of materials in this area are the most complete, and are, therefore, more valuable from the analytical standpoint. These collections were used by Ford (1936) in his work on Louisiana and Mississippi (Fisk 1938:7).

With regard to the other sites, however,

Mr. Walter Beecher located the mounds (sic) along Little River, Iatt Lake, Red River, and in the general northern parts of Grant and La Salle Parishes. His work was primarily of a reconnaissance nature and, although collections were made, insufficient time was available for systematic examination of each site (Fisk 1938:7).

And in his plate showing these sites, most of the sites in Beecher's survey area (G-1 through 4, G-6 through 7; G-9 through 15; and G-23 and 24) are left without cultural designations (Fisk 1938: Plate III). Thus, it seems not only possible, but probable, that Beecher used popular or folk wisdom in assigning this site to the Choctaws. That the site was well known throughout the area, and that locals knew Indians had frequented it, seems evident from the name Indian Hill, which Beecher placed on the site form. The existence of a contemporary quarry shows that he was certainly right in suggesting that the site was utilized to the present day. Folk or popular wisdom pervades much of this area. For example, just a mile to the north is Beecher's G-10 (16GR10), which, like 16GR4, is a Miocene outcrop in the Pleistocene Prairie terrace formation. Local wisdom is that this is an Indian mound; our examination suggests that, like Indian Hill, it is a natural feature.

In short, Site 16GR4 appears to be located on an outcropping of Miocene sandstones, quartzites, and cherts which was utilized as a quarry both by prehistoric peoples from time immemorial to people of the present day. The thin earth cover has eroded from the top of this formation, exposing the indigenous gravels. These gravels and debitage from human toolmaking have eroded downhill, so that now they appear almost evenly distributed on the hillsides. The heavy briars, mentioned above, made systematic survey impossible, but it may be taken as a given that the debitage extends all over this formation. This site is thus on the order of three to six ac at a minimum in extent. Considering, however, that this part of the Prairie Terrace extends in a horseshoe around Magnolia Lake, and that the 7.5 ft sheet shows another quarry about one half mile to the east of Indian hill, it is likely that the evidence of prehistoric habitation extends over this entire formation, which may give it an area of up to 40 ac. We would

expect, however, that the concentration would be greatest at Indian Hill, which lies between the lake and the bayou, and thus was most assessable access by canoe.

The significance of this site appears to be great from the standpoint of developing regional models for the distribution of lithic resources. It may well be that some of the material from the Rigolette Site (16GR423) described above derive from this quarry. Unfortunately, however, the center of the hill has been dug out to a depth of 20 ft, leaving a crater of 150 ft x 60 ft. Thus, the site has suffered an extreme adverse impact already. Second, to a depth of at least 20 ft the earth is so admixed with gravels that it is virtually impossible to point to any stratigraphy within this layer. Hence, the degree of site integrity required for National Register eligibility does not seem to exist. No midden is visible and there is no evidence of separation between layers. Consequently, any assignment of time depth and/or cultures must rest upon typological criteria. Since no true diagnostics were observed during this reconnaissance, even this is impossible. It is hard to balance these elements in terms of National Register eligibility. The best that can be suggested at this point is that a site such as this was such an apparent magnet to prehistoric peoples that other sites, perhaps of a village nature, may well be nearby. An intensive survey of this entire area, from Old U.S. Highway 8 south to Bayou Rigolette would be most informative. These writers would like to see more work done in this location and its environs. Certainly, in view of the probability of continued impact on this site by quarry operations, an attempt should be made to salvage as many data as possible.

Survey of 23 ac East of the Mouth of Bayou Darrow

In July, 1992, in response to a modification of this delivery order issued by the Corps of Engineers, Malcolm K. Shuman; Dennis C. Jones; and Rocky Sexton carried out an intensive survey of 23 ac just east of the mouth of Bayou Darrow. This area will be used for levee work by the Corps of Engineers (Figure 14). It consists of a field currently in cultivation for soybeans; portions of the current levee; and a small area on the batture side of the current levee. The batture also includes portions of the old levee, and is overgrown with low brush. Shovel tests were conducted along transects spaced 20 m apart, with tests excavated at 50 m intervals along each transect. The modern levee was not shovel tested. All shovel tests on the batture side of the levee was screened, while sixty percent of those in the bean field were not, due to the sogginess of the soil. In the latter case, the excavated soil was examined manually. A total of 18 shovel tests were excavated and no cultural materials were observed. Auger testing showed Red River alluvium as far as the soil probe would extend, with a color of 5YR4/6. Soils on the batture side showed the same color and consistency as well.

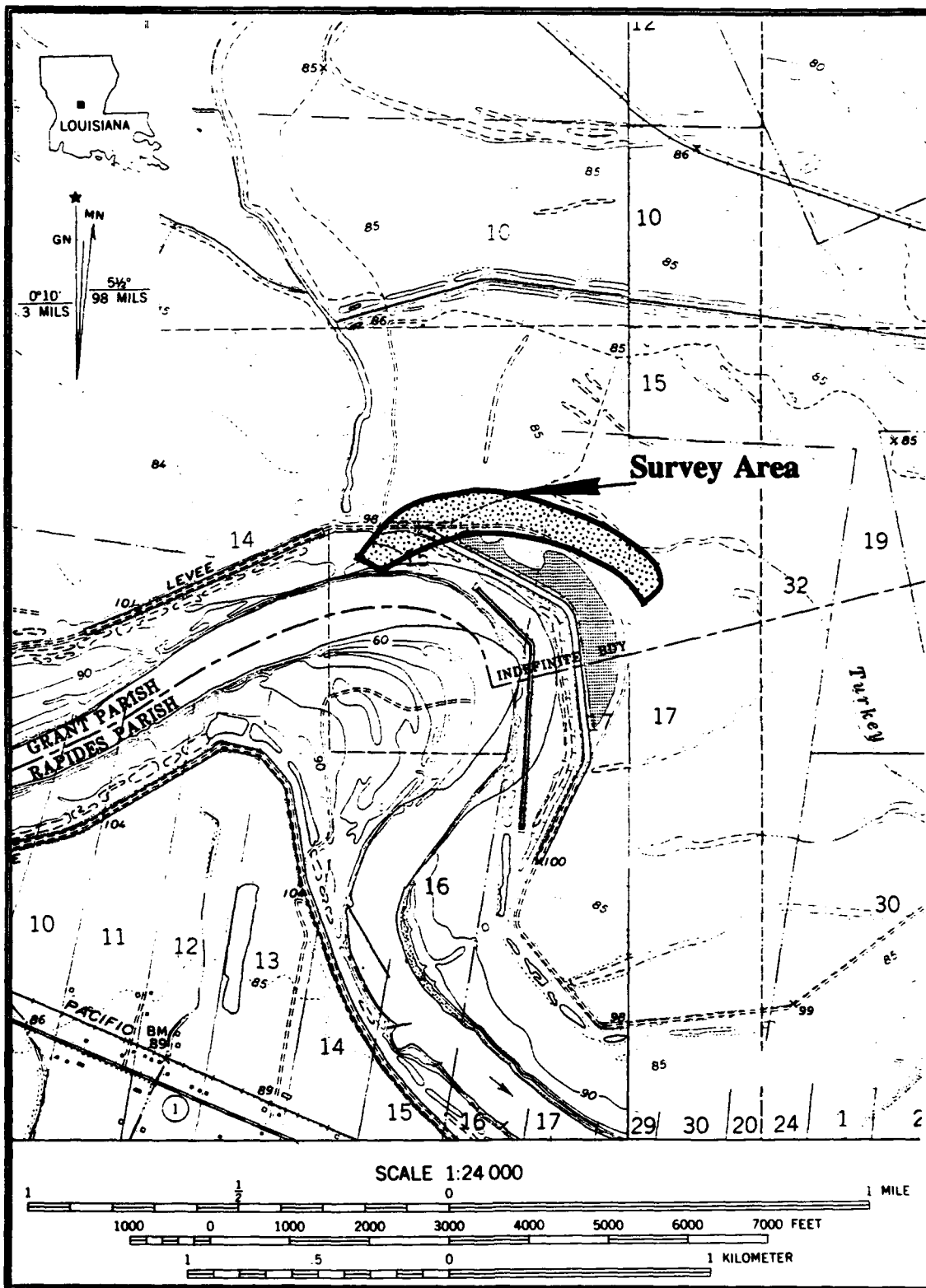


Figure 14: Section of 7.5' USGS Quadrangle Showing Intensive Pedestrian Survey

CHAPTER VIII

DISCUSSION AND RECOMMENDATIONS

Archeological survey was carried out in Grant Parish, Louisiana, along Bayou Darrow, and parts of Bayou's Rigolette and Sam's Bayou. Two prehistoric lithic sites and a twentieth century cemetery were discovered. All were outside the project area.

The first site, (16GR4), was judged not to have yielded sufficient information for a determination of eligibility. It is suggested that this site represents a regional center for prehistoric lithic toolmaking and the collection of raw materials for toolmaking. Judging from what is currently known, it would be ineligible on the basis of lack of site integrity. Nevertheless, it seems to possess potential for yielding significant data regarding prehistoric lithic distribution and manufacture for this area. The second lithic site (16GR423) demonstrated a lack of stratified deposits and a dearth of diagnostic artifacts, so that little if any information is imparted regarding the age or cultural affiliation of the site. Site 16GR423 does not exhibit the quality of significance necessary for inclusion in or nomination to the National Register of Historic Places [36CFR60.4 (a-d)]. The Bayou Rigolette Site (16GR423) may be interpreted as a chipping station utilized by prehistoric hunters and it is likely that some of the materials recovered derive from 16GR4. No further work is recommended for this site at this time.

In discussing Bynum Cemetery (16GR469), a distinction must be made between the graves themselves and the grave markers. The grave markers were located during the course of the survey, but the graves themselves were not and, according to information provided by the landowner, are some distance away. Thus, the stones are not *in situ*, having been removed from their original locations. Accordingly, the cemetery fails the criterion of integrity for National Register eligibility. No further work on this cemetery is recommended.

Historic research indicated that European settlement occurred in the environs of the project area, especially in the area near the confluence of Sam's Bayou with Bayou Rigolette. Historical records suggest that Bayou Rigolette was always a greater magnet for historic settlement than was Bayou Darrow. This pattern may help elucidate prehistoric settlement in the area as well. While prehistoric manifestations may be observed in the hilly uplands surrounding the project area, no evidence of their occurrence was encountered within portions of the project area along Bayous Darrow and Rigolette.

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Colfax	1:24,000	1985
Colfax	1:62,500	1956, 1936
Rock Hill	1:24,000	1972

June 4, 1992

**REVISED SCOPE OF SERVICES
MODIFICATION 001, DELIVERY ORDER 03,
CONTRACT NO. DACW29-90-D-0016**

**CULTURAL RESOURCES INVESTIGATIONS FOR THE ALOHA-RIGOLETTE AREA,
LOUISIANA FLOOD CONTROL PROJECT, GRANT, RAPIDES, AND AVOYELLES
PARISHES, LOUISIANA.**

1. Introduction

The U.S. Army Corps of Engineers, New Orleans District (NOD), is completing plans for the Aloha-Rigolette Area, Louisiana Flood Control Project located in Grant, Rapides and Avoyelles Parishes, Louisiana. A Final Environmental Impact Statement (FEIS) was filed with the Environmental Protection Agency on November 17, 1989. The project was authorized for construction by the Water Resource Act of 1990. Upon completion of detailed design studies performed during preparation of the Design Memorandum for this project, certain modifications to the approved plan were necessary. The modifications included the elimination of a diversion channel closure at Saline Bayou, a difference in the distance to be cleared along Bayou Darrow and an alternative waterfowl mitigation area of approximately 345 acres of abandoned catfish ponds adjacent to the Grand Cote National Wildlife Refuge in Avoyelles Parish.

Cultural resources investigations were conducted within portions of the project area during 1982-1983 (U.S. Army Corps of Engineers 1986). However, the final plans include several parcels which require evaluation of possible cultural resource impacts. These areas cover about 51 acres of terrestrial habitat and 8.2 mi of riverine habitat.

This delivery order requires the contractor to conduct land tenure, literature search, intensive survey and site inventory within approximately 28 acres in Township 6 North, Range 3 West, Section 53 and approximately 23 acres in Township 5 North, Range 3 West, Section 15. Geomorphological research, reconnaissance survey and site documentation will be conducted for approximately 8.2 miles along Bayou Darrow. The modified delivery order period is 111 days.

2. Study Area

The study area includes several areas southeast of Colfax, in Grant Parish, Louisiana. The areas to be assessed include the following: 1) the proposed Low Flow Structure on Bayou Rigolette and access road, about 1000 ft downstream from its junction with Sams Bayou, 2) the proposed realignment of Sams Bayou between its confluence with Bayou Rigolette and the existing Sams Bayou Closure, 3) about 8.2 miles on Bayou Darrow from just north of the Red River Levee to its junction with Sams Bayou, then up Sams Bayou

to the south end of the existing Sams Bayou Closure, 4) Site 16GR4, located on a short relict channel west of the confluence of Sandy Bayou with Bayou Darrow (SEE SECTION 7), and a 250 X 4000 ft borrow pit and disposal area located on the left descending bank of the Red River below Bayou Darrow. These areas are located in the central Gulf Coastal Plain, specifically, in the Red River Alluvial Valley and traverse Holocene Age flood plain deposits that are underlain by fluvio-deltaic deposits of Tertiary Age.

3. Background Information

General overview information is available for the project vicinity as a result of cultural resources studies conducted for various federally funded/permitted actions. Most of these deal specifically with investigations undertaken for the Red River Waterway Project. In addition, New Orleans District (NOD) also presented investigations for the Aloha-Rigolette Flood Control Project in a 1986 final report titled: A Reconnaissance Survey in the Aloha-Rigolette Flood Control Project Area, Grant and Rapides Parishes, Louisiana. Soil and geologic profiles completed and interpreted for the project area are presented in the design memorandum (Enclosure 1).

4. General Nature of the Work to be Performed

Three discreet land parcels totaling approximately 51 acres within the Aloha-Rigolette Project area will be the focus of land claim studies, detailed background research and intensive cultural resources investigations. In addition, approximately 8.2 mi along portions of Bayou Darrow and Sams Bayou will be subject to geomorphological, archeological and historical interpretation followed by reconnaissance survey. These efforts will be designed to assess previous investigations in the area and to determine what impacts may occur as a result of clearing and snagging within this portion of the project area. An assessment of site 16GR4 is necessary for further understanding potential project impacts on cultural resources within the project area. This study represents a partial implementation of the research design proposed in the final report entitled A Reconnaissance Survey in the Aloha-Rigolette Flood Control Project Area, Grant and Rapides Parishes, Louisiana.

5. Study Requirements

The study will be conducted utilizing current professional standards and guidelines including, but not limited to:

the National Park Service's draft standards entitled, "How to Apply the National Register Criteria for Evaluation," dated June 1, 1982;

the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation as published in the Federal Register on September 29, 1983;

Louisiana's Comprehensive Archaeological Plan dated October 1, 1983;

The Advisory Council on Historic Preservation's regulation 36 CFR Part 800 entitled, "Protection of Historic Properties".

The work will be divided into three phases:

- (1) Mobilization and Background Search
- (2) Reconnaissance and Intensive Cultural Resources Survey
- (3) Data Analysis and Report Preparation

a. Phase 1: Mobilization and Background Search

The study will begin with research of available literature and records necessary to establish the cultural setting, predict the nature of the resource base and refine the survey methodology. This phase will include archival research, a literature review, a thorough review of the geomorphological literature and research of historic maps and conveyance records. Efforts will focus on the identification and evaluation of geomorphic processes and in determining landform genesis and evolution as related to reconstructing past landscapes for the entire 8.2 mi project area along Bayou Darrow from just north of the Red River Levee to its junction with Sams Bayou, then up Sams Bayou to the south end of the existing Sams Bayou Closure.

A title search will be performed for property encompassing the proposed Low Flow Structure on Bayou Rigolette, the proposed borrow pit and disposal area, and the proposed realignment of Sams Bayou between its confluence with Bayou Rigolette and the existing Sams Bayou Closure. The title search will provide a history of land ownership useful for developing the context for evaluation of archeological sites which may be found by the survey. The title search and land tenure history will be pertinent to addressing research questions concerning the land parceling and historic settlement of the immediate project area.

Historical and geomorphological research involves a need to establish a sequence of channel formation and abandonment within the project area in order to determine the potential for encountering archeological sites within portions of the project area. This information will be organized to assess previous research and potential project impacts along Bayou Darrow and Sams Bayou.

A preliminary summary succinctly reporting the results of the title search and the geomorphological research shall be submitted to the Contracting Officer's Representative (COR) within 10 days of completion of the Phase 1 research (SEE SECTION 6a).

b. Phase 2: Intensive Cultural Resource Survey

Upon completion of Phase I, the Contractor shall initiate an intensive pedestrian survey within the limits of the proposed Low Flow Structure on Bayou Rigolette and the proposed realignment of Sams Bayou. The intensive pedestrian survey will be conducted along transects spaced at 20 m intervals. Shovel tests will be excavated every 50 m; shovel tests on adjacent transects will be offset. Shovel tests will be approximately 30 cm in diameter and will be excavated 50 cm deep or to sterile subsoil. This procedure will be

supplemented with additional auger tests which will be excavated where high probability areas for cultural resources may occur. Soils from each shovel test will be screened through 1/4 in (.6 cm) hardware cloth. The stratigraphy, soil characteristics and a description of artifacts will be recorded for all excavations. The location of all excavations will be recorded on project maps. All excavations will be backfilled upon completion of the recordation process. Pedestrian survey within the limits of the proposed borrow pit and disposal area will employ the same methodology described above.

The riparian reconnaissance survey within Bayou Darrow and Sam's Bayou will be conducted by small boat; it will include bankline examinations and on ground inspections of areas where there appears a high potential for archeological remains. Limited shovel and auger testing will be performed. Excavation and recordation procedures will follow those outlined above. Photographic and written records will be maintained to document existing conditions, the presence of archeological sites and potential impacts within the project area.

The work at site 16GR4 and any other sites identified during the reconnaissance and pedestrian survey will include mapping, photographs and brief testing using shovel, auger and controlled surface collection to determine the nature and extent of the site (i.e., cultural affiliation, preservation, size, depth, stratigraphy, etc.). Excavation and recordation procedures will follow those outlined above. The location of all excavations will be shown on the site map. Site locations will be plotted on the appropriate USGS 7.5' series quadrangle and on project maps. State site forms and update forms will be completed for each site identified during the survey. All cultural resources will be evaluated against the National Register criteria contained in Title 36 CFR Part 60.4 and within the framework of the historic setting and the state management plan to assess the potential eligibility for inclusion in the National Register.

A preliminary summary succinctly reporting the results of the reconnaissance, field survey and site recordation shall be submitted to the COR within 10 days of completion of the field work (SEE SECTION 6a).

c. Phase 3. Data Analysis and Report Preparation

All data will be analyzed using currently acceptable scientific methodology. The Contractor shall catalog all artifacts, samples, specimens photographs, drawings, etc., utilizing the format currently employed by the Office of the Louisiana State Archaeologist. The catalog system will include site and provenience designations.

All cultural resources located by the survey will be evaluated against the National Register criteria contained in Title 36 CFR Part 60.4 and within the framework of the cultural setting to assess the potential eligibility for inclusion in or nomination to the National Register. The Contractor will classify each resource as either eligible for inclusion, potentially eligible, or not eligible for inclusion in the National Register. The Contractor shall recommend specific testing or appropriate mitigation measures for all resources classified as eligible or potentially eligible.

All literature, map search, field and laboratory data will be integrated to produce a single, graphically illustrated, scientifically acceptable report discussing the project as a whole. Data integration requires use and application of all data collected to interpret resources, their setting, formation, destruction and significance. The draft and final reports will include official state site numbers for all previously and newly recorded sites discussed.

6. Reports.

a. Preliminary reports.

One copy of a preliminary report will be submitted to the COR within 10 days after completion of the Phase I tasks and 10 days after completion of the Phase II tasks. These reports will summarize succinctly, the results of each phase of research (i.e. number, type, brief description and assessment of project impacts for all cultural resources located and preliminary assessments of site significance). If cultural resources are identified during the survey, the report will recommend which (if any) sites should be avoided or what the potential impacts to the site may be. The summary report is not intended to be a lengthy interim report, but shall contain enough information to serve as a planning aid and a means of informing the COR.

b. Monthly Progress Reports

One copy of a brief and concise statement of progress shall be submitted each month throughout the duration of the delivery order. These reports, which may be in letter form, should summarize all work performed, all information gained, or any problems encountered during the preceding month. A concise statement and graphic presentation of the Contractor's assessment of the monthly and cumulative percentage of total work completed by task shall be included. The monthly report should also note any difficulties, if any, in meeting the contract schedule.

c. Draft and Final Reports

Five copies of the draft report integrating all phases of this investigation will be submitted to the COR for review and comment 30 days after the date of the modified delivery order. The Contractor shall submit state site forms for sites discovered and update forms for previously recorded sites encountered during the course of work.

The COR will provide all review comments to the Contractor within 35 days after receipt of the draft reports (65 days after date of modification order). Upon receipt of the review comments on the draft report, the Contractor shall incorporate or resolve all comments and submit one preliminary copy of the final report with the complete discussion of investigations, results and recommendations for the additional work performed under this modification to the COR within 30 days (95 days after date of modification order).

Upon approval of the preliminary final report by the COR, the Contractor will submit one reproducible master copy, one copy on floppy diskette as required in the Contract and 30 copies of the final report to the COR within 111 days after date of modification order. Included as an appendix to the Final Report will be a complete and accurate listing of

cultural material and associated documentation recovered and/or generated. A copy of the Scope of Services (Modification 001) shall be bound as an appendix with the Final Report.

The written report shall follow the format set forth in MIL-STD-847A with the following exceptions: (1) separate, soft, durable, wrap-around covers will be used instead of self covers; (2) page size shall be 8-1/2 x 11 inches with 1-inch margins; (3) the reference format of American Antiquity will be used. Spelling shall be in accordance with the U.S. Government Printing Office Style Manual dated January 1973.

In order to preclude vandalism, the final report shall not contain specific locations of archeological sites. Site specific information, including one set of project maps accurately delineating site locations, site forms, black and white photographs and maps, shall be included in an appendix separate from the main report.

7. Attachments.

Attachment 1.
Attachment 2.
Attachment 3.

Aloha-Rigolette Design Memorandum
General project map
Project map (sheets 18-21)

8. Disposal of Records and Artifacts.

All records, photographs, artifacts and other material data recovered under the terms of this delivery order shall be recorded and cataloged in a manner compatible with those systems utilized by the Louisiana SHPO and by State and Federal agencies which store archeological data. They shall be held and maintained by the Contractor until completion of the delivery order. Final disposition of the artifacts and records will be in accordance with applicable Federal and State laws. Unless otherwise specified, artifacts will be returned to the landowner or permanently housed with the Louisiana Division of Archaeology and Historic Preservation or in a repository selected by the State Archaeologist. The Principal Investigator shall inform the COR in writing when the transfer of data has been completed and shall forward to the COR a catalog of items entered into curation. The location of any notes, photographs or artifacts which are separated from collections shall be recorded in an appendix. Privately owned collections which are used in data analyses will remain in private ownership. The Contractor shall be responsible for delivery of the analyzed archeological material to the individual landowners, the Louisiana SHPO's office, or any other repository designated by the Government following acceptance of the final report. All artifacts to be permanently curated will be cleaned, stabilized, labeled and cataloged on typed State curation forms and placed in sturdy bags and boxes which are labeled with site, excavation unit or survey collection unit provenience.

9. Partial Payments.

Partial Payment will be made up to ninety percent (90%) upon submission of proper invoices and acceptance of the draft report by the COR. The draft report will be accepted when the COR determines that it substantially meets all the requirements of the scope

of service. The balance of the delivery order amount will be paid upon receipt of proper invoices and the Government's acceptance of all final products.